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REQUIRED READING FOR MARCH.

BODILY HEAT AND CLOTHES.

BY C. FRED. POLLOCK, M. D., F. R. S. E., F. R. C. S. E.

Life is a slow fire, and bodily heat is the sign of the burning. Its sources are mainly found within the body itself in the chemical changes which are constantly going on. If you burn a piece of bread in the fire, you will get carbonic acid, water, ammonia, and heat; and, if you eat it, the result is the same. Food then is fuel. But another set of heat-giving chemical changes has its seat in the wasting of the tissues, involved in every thought, in each movement, and in all the vital processes. Hot foods and drinks and heated atmospheres are artificial additions to our own heat.

We lose some heat in the excretions; thus, for example, in breathing, the air during its sojourn in the lungs is warmed, as we know familiarly from blowing upon our cold hands in winter. Then some more is lost in raising any cold food or drink to the temperature of the stomach. But the greatest amount is lost through the skin; and this is partly by radiation, just as a kettle with hot water radiates its heat out into the air. The subcutaneous layer of fat, however, which is a bad conductor of heat, prevents much loss of this kind; and persons with abundant fat are therefore more readily kept warm. A further loss occurs by the evaporation of the sweat, the heat of the body being used up in forming this into vapor, just as the heat of a fire is used up in converting water into steam. This evaporation is going on always, either quite unnoticed by us, when we perspire "insensibly", or very visibly, when we perspire "sensibly" as after exertion on a hot day.

It is one great office of the perspiration to maintain this balance between the heat produced and that which is lost, the result being that there is a standard of bodily temperature kept perpetually within narrow limits. A thermometer allowed to lie for ten minutes or so next the skin in the covered arm-pit, will stand at $98\frac{1}{2}^{\circ}$ Fahrenheit, and the heat registered remains the same in health through winter and summer, in temperate latitudes with the air at 55° Fahrenheit, in the tropics with the air at 100° Fahrenheit, and in arctic regions with the air at -70° Fahrenheit, when metal bites the hand with its intense cold. This regulation of our temperature is under the control of the nervous system, acting upon the blood-vessels. Under the influence of ex-

ternal cold the small arteries in the skin contract, there is less blood there, and therefore less activity of the sweat-glands, with the pale, dry, goose-skin condition seen on a cold morning. Under the influence of external heat, on the other hand, the little vessels are widely relaxed, there is much more radiation, and great production of sweat, the red, moist, hot skin covered with sensible perspiration leading to greater evaporation and therefore more cooling, just as in the application of a cooling lotion like *Eau-de-Cologne*.

We thus gain heat from the action of some parts of our body, and lose it by the activity of others; and the blood is the great distributor, carrying it from the hot muscles and glands to the cooling skin and lungs, and *vice versa*.

The feeling of heat and cold is partly influenced by our emotions, the excitement of anger bringing a flush, when a person is "hot and angry", or the creeping pallor of fear and dread causing a "cold shiver". Food and drink also tell upon the temperature, both according to amount and according to kind. When we have to resist cold weather, nature prompts us to eat heartily; and we speak familiarly of a "fine, cold, hungry day"; whereas, when the weather is very warm, a much more moderate amount of food suffices, and we declare we feel "too hot to eat". When shivering with cold every one enjoys a warm drink like a cup of hot tea; heat from exercise is readily reduced by a cold drink or an ice, the only danger to avoid being the temptation to take too much at a time, which would produce a shock and might be disastrous. Alcohol is delusive in this respect as a warming drink. Its stimulating properties afford a feeling of warmth; but it relaxes the blood-vessels of the skin, and this means more blood, more radiation, more perspiration and evaporation, a rapid loss of heat with a speedy feeling of chill.

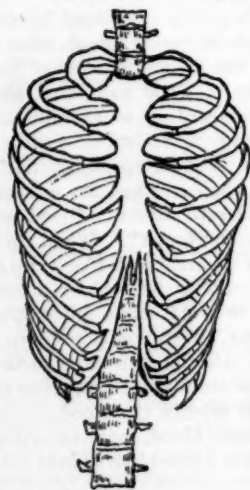
Variations in bodily temperature depend largely upon muscular exercise. If there is much use of muscle, there is much heat, and the temperature would rise, were it not for the rapid circulation in the skin with its balancing effect and the quickened breathing with loss there, which the exertion induces. If, on the contrary, a sedentary life is led,

there is a habit of sitting near the fire and a complaint of cold feet, artificial aids not always succeeding in supplementing deficiencies caused by neglect of nature's methods. Brisk exercise is good for cold weather; loafing and lounging are bad except in warm sunshiny climates. The state of the atmosphere tells very markedly. Manifestly the warmer the air the less heat is lost from the body and therefore the less requires to be made; but, further, our comfort or discomfort in hot weather depends largely upon the amount of moisture present in the air. A hot dry climate is easily borne, for we can drink much water, perspire freely, and thus be kept cool; but in a warm moist climate a very trying effect is experienced, for the damp air, largely charged with watery vapor, prevents free evaporation, and thus hinders the cooling of the body.

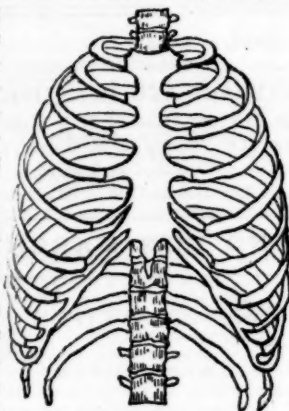
The movement of the air, also, has a great effect. Cold air in motion cools much more than cold air at rest, for it brings new supplies to abstract heat; and therefore cold still air does not chill so much as wind on an even warmer day, and standing in a draught when heated and perspiring lays one open to catching a cold. Firing which heats the room lessens the demand for internal combustion.

Clothes. The primary object of clothing in cold climates is to retain the heat of the body; in hot climates it may serve the opposite purpose of protecting from the sun; while in any place a secondary but most important object is ornament. The body should be thoroughly protected and covered without unnecessary weight, and no part should be constricted, unduly pressed upon, or interfered with by the dress.

As to **material**, wool is the best for retaining heat, for it is a bad conductor, and, preventing loss, feels "warm". It



Chest of a girl, twenty-three years of age, deformed by tight-lacing.

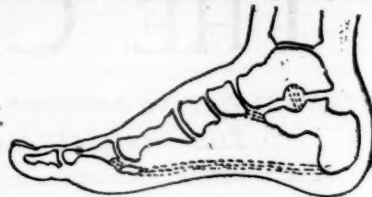


Shape of normal chest.

is specially good for clothing next the skin, absorbing the sweat, and so keeping the skin dry, while allowing the perspiration to pass outward. It is particularly desirable as underclothing for children and old persons, who have not much power of resisting cold and require warm coverings. Cold is the great enemy of the old. Dry clothing next the skin is of the utmost importance in cold climates, for the chill produced by damp clothes, as when any one gets "wet through" is one of the commonest causes of a severe chill and some internal congestions. In a climate with rapid changes in temperature the great value of woollen underclothing is recognized by its universal use to maintain an equable warmth.

In hot weather cotton underclothing is cooler, because it is a better conductor of heat, and therefore allows of more loss; but then it at the same time conducts more of the ex-

ternal heat to the skin, and thus protects it less; and it involves the risk of sudden and rapid fluctuations of temperature. Furs, like wool, preserve the heat, while linen and silk, like cotton, allow it to be more quickly lost. It has



Section of normal foot, from center of heel to tip of great toe, showing the natural arch. The dotted lines are ligaments binding the bones together and giving spring.

been asserted that woollen underclothing is heavy; but this is not so, for a woollen garment is infinitely warmer than a cotton one of the same weight, and to clothe the body properly it requires less weight of wool than of any other material. Wool irritates some skins, however, from the roughness arising from its fiber; but where this can be borne, it is of some use, stimulating the skin, as old people and those with sluggish circulation know to their advantage. Fine and thin forms are available; but they should not be closely woven.

Any underclothing which is not scrupulously clean is most unwholesome, for it is clogged with decomposing sweat and the particles which are shed from the skin. Wool is the safest stuff for the night-dress of a child in cold weather; and it is well to have this made in the form of a suit rather than a night-gown, because the child will not be exposed to cold, even if it tosses off the bed clothes in its



Outline of ladies' foot. The weight is thrown upon the toes, and the heel presses upon the large ligament, spoiling the spring and interfering with the circulation.

sleep, a habit which often means simply that there are too many coverings. For adults, however, cotton or linen seems to be the best material, affording cleanliness and personal comfort, while warmth is maintained by the blankets enclosing warm air. After exercise dry woollen clothing is of much service, preventing any sudden checking of the perspiration with the risks of rheumatism or internal inflammations.

If the underclothing is ample, no great advantage results from heavy outer garments, which are frequently a considerable burden, except in severe weather. Weight does not imply warmth but fatigue. Two thin garments are warmer than a single thick one of equal material, because layers of heated air are enclosed between them. As to **texture**, loosely woven fabrics preserve more heat than tightly woven articles; knitted woollen comforters for the neck affording a good example. They are more healthy also, allowing gradual evaporation of the perspiration from the surface, without cooling the skin below. The impossibility of getting this action with an impervious substance like a Macintosh

waterproof is the great disadvantage of such a garment, except when used to keep out rain for a short time, when the wearer is at rest. Mufflers are good things to put on when passing from a warm room to cold outside air; but they should not be too thick nor worn too often habitually, as this renders the throat more susceptible to accidental exposure.

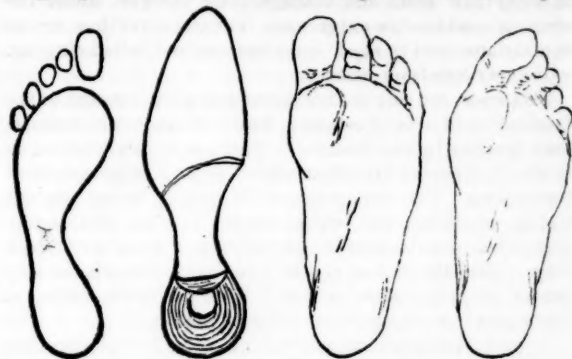
The color of the outer clothing makes some difference, for black and dark shades like dark blue absorb the sun's rays, while light bright colors and white reflect them. The former are, therefore, suitable for winter, and the latter are preferred in summer for their coolness, care being taken that the thickness, nature, and arrangement of the garments yield the desired effect.

So far as fit is concerned, loosely fitting articles, other things being equal, are warmer than tightly fitting ones, because the latter interfere with the circulation, as cold hands and feet in tight gloves and boots amply testify. Garters should give place to suspenders as people come to know that mischief may be done by impeding the circulation by pressing on the veins below the skin. The ideal fit is an easy fit; and above all a child's clothes should be pleasantly loose to allow free play to its limbs. An infant can not protest except by neglected cries against a binder that embarrasses its breathing or a dress that hampers its arms and legs.

Even yet it is necessary to warn people against some bodily deformities and displacements wilfully brought about. For an imaginary improvement in their figure many women do not hesitate to fetter the movements of respiration by tight-lacing, oblivious of the fact that their folly is patent to all, and a universal scorn and scoff. The dangers to digestion, nutrition, respiration, and circulation are stern realities, though their progress may be insidious; the bodily deformity produced is permanent. A corset should be perfectly flexi-

ble, quilted or corded work giving sufficient firmness, and should compress no part unduly.

No one, who has ever been told that the sole of the foot is one of the wonderful arches of nature, a characteristic distinction of the human species, with a perfect provision to give it spring,—no one with this knowledge will venture to spoil



Impression of normal sole. Outline of the sole of an ordinary boot. Sole of normal foot. The condition in which feet are commonly found.

the mechanism, and throw the weight of the body upon the toes, with a weakening effect on the muscles of the calf and an interference with the blood supply of the whole foot, by wearing boots with small but high heels under the delusion that they are harmless and improvements. Absolutely rigid soles prevent the natural spring. Painful ingrowing toe nails, displaced toes, horrid corns, and general disfigurements,—such are the local results of many boots, which the feet are made to fit, results which render proper walking impossible and weaken the feet.

As to ornament, vulgarity is perhaps known by nothing more easily than by its clothes.

RIDING AND DRIVING.

BY MAURICE THOMPSON.

In America we ride and drive a good deal, but the riding is confined in a great measure to the cattle men and Indians of the West, and the driving finds its votaries largely among the professional and semi-professional horse-fanciers and turf men.

It is true that in our cities, towns, and villages there are those who affect horsemanship and have great pride in their stables, but for a country of pastures and meadows and corn, ours is by no means a horse country. Our gentlemen do not ride, in the liberal sense of the word, few of them possessing saddle-craft enough to dare venture upon a run with the hounds, and our ladies as a rule can not sit respectably on horseback.

Driving of a slip-shod, awkward sort is common enough with both men and women, but driving as an art is in its beginning with us as a people. This is all the more strange when connected with the fact that we have done more to develop the horse in especial regard to his road paces than any other nation on the earth. It may be said that our roads are not good over a large part of our land and that in our northern states the long winter and faltering spring are unfavorable to equestrian pastimes. Still the fact that bicycling and tricycling have not languished on these accounts is enough to answer the objection to both climate and roads. Moreover, our climate is far drier and more stable than that of England

where hunting and steeple chasing, and indeed every sort of riding are indulged in very freely by the people. We doubtless have horse-racing and driving matches enough and to spare; in behalf of these I am not writing, though they might be made harmless and even worthy pastimes. One great good has come of the driving parks: the evolution of a race of swift, beautiful, and docile light harness horses, the very best in the world.

A history of equestrian pastimes would be, in a large degree, the history of mankind. The horse has shared the glory, the victories, the vicissitudes, and the sports of our race from the first. The chariot, the horse and his rider, the steed that snuffs the battle from afar off, these are the phrases of the earliest poets, and they are the sketches of the pre-historic artists. The myth of the centaur is a figure of that romance which naturally grew out of a dream of ideal horsemanship. The horse and the man combined made a greater being than mere man, it was man's intellect, man's character, will-power, and moral force combined with the physical strength and endurance of the horse. When the rider and the horse are one, the perfection of equestrian possibilities is reached.

Among the Greek and Roman pastimes the chariot race was the noblest, though the riders of horses received great honors from the poets. The Asiatic tribes were early noted

for their horsemanship, as the Arabs are to this day, and some of them were terrible to their neighbors, chiefly on account of their equestrian superiority. It was the institution of chivalry, however, that brought horseback riding to its highest development. The knights lived in the saddle and their fortunes, honors, and lives depended upon their ability to keep their seats and manage their chargers under the stress of most terrible exigencies. The picture of these errant equestrians, clad in steel, lance-bearing and ballad-singing, will never fade from history.

No person can fail to understand one great element of the fascination of knight-errantry, who will undertake a horseback journey in fine weather. There is an exhilaration in it wholly different from that attending any other species of locomotion. The consciousness of having under you the living, breathing, and loving servant of your will, is supplemented by a sense of the enormous power you are controlling. Then the motion of a well trained roadster is the very poetry of progression, and one is aware (while riding) of one's part in a very picturesque combination.

A good equestrian, man or woman, never looks better than when in the saddle. Strength, elasticity, grace, and self-command are combined in the simplest movements of the accomplished rider. I have seen women of ordinary appearance when on foot, who, when mounted upon a good saddle-horse, became superbly beautiful.

The same is true of men. Cavalry officers in many instances sink from strong manly beauty to the bearing and mien of mere common fellows on dismounting. The horse borrows from the rider and the rider from the horse, not only in appearance but in feeling as well, and the subtle interchange of fear, courage, delight, or despondency is well known but difficult to explain. A brave rider makes a brave horse, a cowardly rider soon saps all courage from his steed. It is this close and sensitive relationship between horse and rider which makes one of the strongest and most characteristic charms of the equestrian experience. Your intelligent animal knows when your seat is secure and when your hand is certain, as well as he knows when your words are kindly and your purposes toward him friendly. He loves you or dreads you as you license him by your conduct. He will try to do impossibilities for you if you deserve the faith you solicit.

Physicians are agreed that the exercise of horseback riding and driving may be indulged with benefit by all save those who are suffering from disease that forbids it. As a pastime for strong persons it is one of the prime delights; whoever tries it will acknowledge its fascination. Many invalids are benefited by it, but in each case the physician should be consulted as to advisability, time, and extent. Well people may do pretty much as they please, so that they do not overwork the horse or exhaust their own strength.

To ride or drive well is not hard to learn, but it is the easiest thing in the world to form a bad style at the outset, and if you begin an awkward performer, it will be very difficult to become anything better, since two bad habits are kept more easily than one good habit is acquired.

The three points of horsemanship are: to mount gracefully, to sit steadily, and to handle the reins correctly.

Gentlemen mount from the ground, but ladies must have an elevated stand from which to reach the saddle, or they must be lifted by the gentlemen.

A man mounting from the ground takes the reins in his left hand which he rests on the pommel of the saddle, as he stands with his face turned toward the rear of the horse. Placing his left foot well in the stirrup he swings himself into the seat by rising on the left foot and casting the right

leg over the saddle. If the horse is very tall and the rider short, the mount will have to be made facing the animal's side, or even looking diagonally across its neck. Once in the saddle settle yourself in the middle of it, sitting straight but not stiffly, balancing your body as you would in an easy rocking-chair, your feet at about the same angle they would have in walking. Have the leathers of your stirrups just long enough to give you power to stand in them and clear your saddle easily; this will give you perfect control of yourself in balancing and in handling the reins. As to the fine points of riding well, no writing can convey adequate instruction. You must learn them in the saddle.

Be kind, gentle, firm, and sincere with your horse, and you will soon feel the fascination of his affectionate subjection and faithfulness. He will obey your slightest motion as readily as he will your sternest command. Indeed there is no animal more loving or lovable than the well-bred and well-trained horse who has a kind master.

Pastimes are all more or less charming and each is the most charming in its turn. What pleasure is deeper or keener than that afforded by an early morning gallop in the country? Choose a bright, fresh May day, a little after sunrise, when dew and flowers and bird-song and wind-rustle and all the sweets and perfumes are at their best; mount and away. Your good horse will know what you are going to do and will show the liveliest interest, for he likes these early flights as well as you do. It is as good for his health as for yours to have exercise and the glow of enthusiastic rapture. The fragrant morning air is as good in his nostrils as in yours. He hears the bird-song too.

A woman who sits on a horse thoroughly well and who has a sensitive and true bridle-hand, is never so beautiful as when riding—as I said a while ago—and she is not unaware of the fact. This consciousness gives her a satisfaction which beams in her cheeks and eyes and heightens the charm of her movements and bodily bearing.

Not long ago I was sojourning in a small Southern town on the sea-coast and had the pleasure of seeing a party of fair young horsewomen speed past my window almost every morning. They were fearless riders, mounted on beautiful animals, and were attended by colored grooms who sat their horses like centaurs. The road which was between my window and the sea, ran along a bluff fringed with a hedge of oleanders. It was made of oyster shells beaten to the consistency of lime, and was almost as white as snow. That gay cavalcade used to come past with merry voices, fluttering ribbons, and clatter of iron-shod feet, while the great bloom of sunrise was opening on the breezy horizon where the water and the sky met and mingled. It was a glimpse worth fastening in one's memory, to be sketched for one's friends, and to be urged as an illustration of the value of out-door pastimes; it was altogether the most engaging picture of health, energy, and happiness imaginable, a recurring flash of vivid and intense life worth going a long way to see.

Riding is especially beneficial to those who have weak respiratory organs, as the exercise has the effect of expanding the chest and of setting the blood to circulating freely. Still it must be remembered that the invalid is not to take his case into his own hands, but must follow the advice of a good physician. Any exercise may be dangerous, even deadly, to a weak organization if unduly indulged in.

Driving is not so exhilarating as riding, but it has its own especial charm for those who like very gentle exercise, and it is less difficult to do fairly well with a short training. A light road wagon and a horse able to trot a mile in five minutes can afford one a delicious but mild excitement not

unlike that of sailing in an open boat. If the road is fine and your horse a free goer, you find the keenest pleasure in watching his movements and in feeling the effect of his strength telegraphed to your hands along the lines. With each stroke of his feet the noble animal sends a thrill of his vigor through the wagon, and there comes to you a fine realization of the tremendous power you are controlling. The air flows over you as if a stiff current were running counter to your course, and every breath feels fresher than the one before it; the trees, the houses, the fields, fly past; even the sunlight appears to be playing with you. This is health-getting in both the physical and the moral sense; it winnows the nerve forces and filters the blood; it stirs up the fountains of happiness and engenders bubbles of mirth on the surface of life.

How shall you learn to drive well? The first thing is to sit easily and firmly, the next is to acquire the deft, sensitive, elastic hand which controls the lines so delicately and firmly that the horse feels your desire come to him like subtle electric signals, instead of by jerks and tugs that wrench his jaws and torture his mouth. If you are watchful and careful and generous, you will soon know your horse as you know yourself and guide him accordingly. Sit upright without stiffness, turn the elbows in, grasp the lines firmly, one with each hand and well forward and pull with just enough force to feel the horse's mouth; then, if the animal is well trained and kind, you will have perfect control of him.

Good driving is safe driving and this requires unfaltering vigilance and the promptest action in emergency. "Keep your head cool and attend to your driving" is the horseman's rule. Harness should be light and strong and no part of it must chafe the horse. Much has been said against the check rein; but I am forced to recommend it; in the long run it serves both horse and driver a good turn. Of course the animal's head should not be forced so high that its neck muscles are strained, but by degrees a low-headed horse should be checked up until his head is carried well back, thus his lung-power will be better and his chest-muscles freer. If you will watch young horses when free and

playing, you will note that they trot and run with their heads high. The best horses I ever have driven would voluntarily lift their heads until they slacked the check-rein when putting on a sudden spurt of power or speed. Indeed this is one of the sure indices of a courageous, nervy, and ambitious animal.

Of course for ordinary pastime, both saddle and harness horses must be gentle and safe. An unkind and fractious animal is an evil companion, a dangerous associate, and should be shunned as you would shun pestilence.

A trotter is the worst possible saddle horse in my estimation, and a man looks absolutely comical when riding one, especially if he "rise to the trot" in the English style. A level and vigorous pace is the most pleasing gait short of a canter or a gallop.

In harness, however, for private pastime and recreation, the trotting horse is superior to all the rest. He is a thing of beauty from every point of view. He is the American horse, the horse *par excellence* in the matter of pastime, the horse to own as a luxury and to love as a friend. He moves with a vigor, an easiness, and, in a word, a style that can be compared to nothing else.

There is not space here to speak at any length of the various modes of riding and driving for pleasure. There are the coach and four, the wagon and pair, the tandem team, the sleighing team, the open tally-ho improvised by capturing a band-wagon or even a farm wain; and then there is the ride to hounds, the gallop across country, the carriage journey,—a hundred ways, indeed, of securing delicious and healthful pastime in one form or another from equestrian exercises.

Surely in a country like ours where three-fourths of the people of means are owners of the soil, we should be able to have our horses and to take our fill of this varied and delightful recreation, within the bounds of prudence and good judgment.

Money-making is well enough and labor is absolute duty, but the day of play, the week of outing, the hour of enthusiastic pastime and recreation can not be put off and refused without paying a bitter penalty in the long run.

Bring out my horse, I am ready.

SCANDINAVIAN LITERATURE.

BY HJALMER HJORTH BOYESEN.

II.

DENMARK AND SWEDEN.

In spite of the political union of Norway with Sweden an intellectual union still exists between Norway and Denmark. This is chiefly due to the fact that the Danish language, which during the provincial relation was introduced into Norway, is yet with slight modifications the language of cultivated Norsemen, and the language of their literature. Then again the splendid development of Danish literature during the first half of the present century naturally dazzled the Norwegians and kept them, until Björnson and Ibsen appeared, in unacknowledged intellectual fealty to Denmark.

Adam Oehlenschläger, whose literary activity embraces the period from 1802-1850, was the first to discover the treasure of unused poetic material contained in the ancient Eddas and prose sagas. He derived his impetus from the romantic school in Germany which, at that time, reveled in mediæval art, manners, and history, with attendant horrors; but the romantic school which he founded in Denmark passed

over the Middle Ages, and endeavored to re-animate the earlier heroic age, which has left so impressive a monument of its deeds in the sagas. That was the age of Danish glory, when the wild and daring races of the North founded and overthrew kingdoms and filled Europe with the terror of their name.

It has been questioned, however, whether those tremendous Scandinavian warriors whom Oehlenschläger resurrected had anything but the names in common with their historic original. "The Adam of Poets", "the Father of Danish Song" was a gentle and emotional temperament, a facile writer, whose fancy was easily fired, whose verse had a captivating cadence. But the deep sympathetic insight required for penetrating into the heart of a remote barbarism—that he had not. It was reserved for the Norse poets, and particularly for Björnson, who in spirit and temperament represents the very type of the ancient Norse chieftain, to accomplish what the amiable Danish bard had attempted to do. For all that, Oehlenschläger's work was of great significance. It stimulated the nation's interest in its

own past and it brought its own literature back to its proper national moorings. The long and interesting series of his historic tragedies, "Earl Hakon," "Baldur the Good," "Palnatoke," "Stærkodder," "Hagbarth and Signa," etc., had, moreover, an immense influence in educating the esthetic sense of the people, and in securing for literature a recognized and an honored place among the avocations of life. His life was a noble and a happy one, and he was the idol of the nation. And yet all his voluminous works seem to-day curiously remote and obsolete; but two of them retain their vitality and even a certain degree of popularity, viz., the heroic romance or saga in verse, "Helge" and the exquisite dramatic poem "Aladdin".

It has been said that in the year 1828 four great and twelve small poets passed their entrance examination to the University of Copenhagen. The seed which Oehlenschläger had sown was beginning to sprout and bear fruit. One of the four, accounted great, was Hans Christian Andersen—the only Danish author who has ever rejoiced in a world-wide popularity. He had the misfortune to be of humble origin, a fact which his countrymen were slow to forgive him. He was ridiculed and persecuted by the critics and the wits of the town; and it was not until Europe and America re-echoed with his fame that his merits began to be recognized at home. For all that, he seems the very personification of the Danish national temperament. His childlike innocence and vanity, his hunger for praise, and his excessive sensibility are but slight exaggerations of the national characteristics. He had the courage to disregard all literary traditions and to write as he thought and spoke; and the refreshingly *naïve* and unsophisticated personality that shone through the text of his simple "Wonder-Tales" and "Household Tales," delighted all who did not know the original. In "The Improvisatore," and "The Story of my Life", where the author throws off all disguise and steps forward in his proper person, his somewhat overconscious *naïveté* is far less enjoyable.

Among his contemporaries, whose fame at home quite overshadowed his, but whose names are now rarely heard outside of their native land, are the prolific romancer Bernhard Severin Ingemann, and the lyricist Christian Winther. The former was the author of a large number of historical novels, in the manner of Walter Scott, which are yet read with avidity by the patrons of circulating libraries. The latter was a Heine without his bitterness; a lyrical honey-bee without any sting. He was an essentially sweet, soft, and idyllic nature—a born singer, with a limited register to his voice, but clear and true within that narrow range.

Of equal or greater significance, as a lyricist, was Bishop Grundtvig whose rousing and spirited songs, though far less finished in form than those of Winther, exerted considerable influence upon the younger generation by powerfully awakening their patriotic enthusiasm. His life was largely devoted to the interpretation and glorification of the ancient Scandinavian mythology and history. Paludan-Müller, another tuneful melodist, struck also his first notes in this key, but gradually found his true vocation as a social satirist. His famous modern epic, "Adam Homo" (written in the metre and manner of Byron's "Don Juan"), represents the typical unheroic Dane in his journey from the cradle to the grave; and lashes with the scourge of a keen and unimpassioned satire the follies and crimes of the average modern Philistine. A series of allegorical dramas or dramatic poems, "Kalanus," "Abel's Death," "Ahasuerus," etc., contain much that is sublime, but seem too remote from modern life and thought to arouse much interest.

Since the literary era, inaugurated by the poets here mentioned, closed with their death, a new school of writers has come upon the stage. Foremost among these are the excellent critic, Georg Brandes, and the admirable novelist, Sophus Schandorph. It is in a large measure due to the former, that Denmark has not become intellectually isolated from the rest of Europe. There was a general disposition after the disastrous war of 1866 to cut off all intercourse with Germany, to cherish chimerical fancies about revenge, to seek consolation in past power for present impotence. Dr. Brandes ventured to combat these tendencies at a time when it required courage and self-sacrifice to do so; and by his fearless championship of modern thought, amid obloquy and persecution, he has saved the present generation of Danish authors from the melancholy fate of chewing the cud of obsolete and worn out ideas.

The feeble romanticism which yet haunts the brains of a few writers like Bergsøe and Ewald is gradually giving way before the wholesome and vigorous realism of Schandorph. In his novels, "Without a Center," "The Story of Thomas Fries," "Common People," etc., we find an uncompromising fidelity to fact, a fine perception of psychological complexities, and a direct and forcible style. He has, moreover, a delightful sense of humor which breaks through his serious discourse like gleams of sunshine through a somber sky.

Another prominent apostle of the new era in Danish literature is the poet and novelist Holger Drachmann. He is, however, less consistent than Schandorph; and it is, at present, difficult to decide in which camp he really belongs. He began as a realist with strong revolutionary proclivities; cherished bold sympathies with the socialists and had even a good word to say for the Commune in Paris. But the youthful ferment of his blood has, by this time, spent its strength, and gradually the innate amiability and conservatism of his nature have asserted themselves. Mr. Drachmann's works are of extremely unequal worth. At his best he is a lyricist of exquisite sensibility and rare power; at his worst, he sometimes descends (though mostly in prose) into aimless and tedious trivialities. Of his numerous works "With Coal and Chalk," "Poems," "Tempered Melodies," "A Supernumerary," "Young Blood," "East of Sun and Moon," and "Strandby Folk" are worthy of mention.

A man who thinks deeply and daringly in a small country becomes, of necessity, a martyr. It is only the conformist who is tolerated; the non-conformist is ridiculed or persecuted. Therefore the one philosopher whom Denmark has produced, Søren Kierkegaard (1813-1855), suffered the penalty of his greatness. He called himself "the martyr of laughter"; because the comic paper, *The Corsair*, made a butt of him, heaping upon him malicious ridicule. And, as every one knows, against a witticism there is no defense possible. An epigram may kill a whole philosophy in a dozen volumes. The purpose of Søren Kierkegaard was to gain a new and more rational basis for Christianity, whereby it might re-conquer the heartfelt allegiance of the educated classes. He waged war, in a long series of brilliant books against the official orthodoxy as represented by the state church and its clergy.

His contemporary, Bishop Martensen (1808-1884), the well-known author of "Christian Ethics" and "Christian Dogmatics," upon whom the duty of their defense rested, held aloof from the controversy, possibly because he felt that he was, neither in profundity of thought nor brilliancy of dialectics, a match for Kierkegaard. Nor was the quondam disciple and adherent of Kierkegaard, Professor Rasmus Nielsen, who after a fashion continued his work, in

any way to be compared with him. His attempts to reconcile religion and science remind one of a tight-rope performance,—a *tour de force* of ingenious reasoning—a clever balancing in perilous attitudes, with imminent danger of a somersault into space. The utter untenability of his position has been demonstrated with great logical cogency by Dr. Brandes. Among the most remarkable books of Kierkegaard (which, as far as I know, have been translated into German) are "Either-Or," and "Stages on the Path of Life".

The standard "History of Danish Literature" (five vols.) is written by Mr. N. M. Petersen, who is also the author of a "History of Old Northern Literature". Both works are more remarkable for accuracy and scholarly research than for brilliancy of style or fineness of insight. The same criticism applies to Horn's "History of Scandinavian Literature" which has been translated into English by Professor R. B. Anderson.

The best known Swedish poet, and so far the only one whose fame has spread beyond the boundaries of Scandinavia, is Esaias Tegnér (1782-1846) the author of "Frithjof's Saga". A strikingly national type he was, uniting in himself, in an eminent degree, the strength and the weakness of his people. Though he was a genuine lyricist, he was also a good deal of a rhetorician; and a certain magnificent, sonorous eloquence was the prime characteristic of his verse. Besides "Frithjof's Saga" which is really a series of striking lyrics, telling a story, he has written "Axel," "The Children of the Lord's Supper" (translated into English by Longfellow), "Svea," and a number of rhymed orations and minor poems.

It is a notable fact that, while the chief intellectual influences which have determined the currents of thought in Danish literature have come from Germany, Sweden has derived these influences mostly from France. The brilliant Gustavian period in the last century was under the domination of Voltaire and the French Academy, after which the Swedish Academy (established by Gustavus III.) was modeled. The so-called Phosphorists, whose leader was the poet Atterbom (1790-1855), were to be sure, disciples of the German romantic school; but they never attained to be anything more than an influential party in Swedish literature; not a predominant influence. The so-called Gothic school, which insisted upon a strictly national development upon a national basis, struck chords which gave a swifter and deeper resonance; and in the same degree as the "Goths" rose in popular favor the Phosphorists were thrown into the shade. The foremost man in this national movement was the poet and historian Erik Gustaf Geijer (1783-1847) who edited its literary organ, *Iduna*. He was a great and noble personality; but early abandoned poetry, in which he had won imperishable laurels, in order to become the historian of the Swedish people.

In the field of fiction, Sweden is not behind the other Scandinavian countries, having in the present century produced a considerable number of interesting writers. Best known among these is Frederika Bremer, whose visit to the United States is still pleasantly remembered by many, and whose book, "Life in the New World," had the rare distinction, for that time, of being written in a friendly and appreciative spirit. Her romances, "The President's Daughters," "Nina," "Home," "The Neighbors," etc., are now a trifle antiquated; but they show much acuteness of perception and power of characterization. They are all more or less animated by a spirit of propagandism for a cause which Miss Bremer had much at heart, viz., the extension of woman's legitimate sphere of activity, and her civic equality with man.

Somewhat akin to her in minute appreciation of all the features of every-day existence is Carl Anthon Wetterbergh, who wrote under the pseudonym "Uncle Adam." His novels and novelettes, "Genre Pictures," "The Four Signatures," "A Name," "Love and Business," "The Core of Society," etc., give as vivid and truthful pictures of Swedish life as Thackeray or Trollope gave of that of England.

Finland, although since 1809, politically a province of Russia, yet preserves, in a measure, its intellectual connection with Sweden; and two of the greatest names in contemporary Swedish literature, Zacharias Topelius and Johan Ludvig Runeberg, are those of Finns. Topelius is, however, but a feeble Walter Scott, possessing in a less conspicuous degree the characteristic gifts of his model. Runeberg (1804-1877), on the other hand, was an indigenous product of Finland. His volume of patriotic poems, "Sergeant Ital's Stories," recounting the reminiscences of a veteran from the war of 1809, are simply and artlessly written, but have, for all that, a stirring quality in them which appeals alike to young and old, to lay and learned. "Nadeschda" and "The Elk-Hunters" are exquisite idyls of Finnish and Russian country life. Runeberg's noblest lyrics are contained in the beautiful collection "Idyl and Epigram".

During the last two decades a new generation of writers has come upon the stage in Sweden, and the new ideas of the century are being vigorously debated. Foremost among the champions of intellectual and social progress is Victor Rydberg, whose historical romance "The Last Athenian" has been translated into several foreign languages. Fine poetic sentiment is in Rydberg united with sound scholarship and a marvelous linguistic power. He is poet and he is reformer, but it is difficult to tell whether he is reforming poet or a poetical reformer. In his book "The Bible's Teaching concerning Christ," he pleads for the abolishment of the official connection between church and state and shows the incompatibility of the secular with the true religious spirit. In the field of what he conceives to be social reform, the novelist August Strindberg is also unfolding a passionate activity, and has by his ruthless iconoclasm incurred the hostility of the conservative classes and even judicial prosecution for sacrilege. His collection of novellettes, entitled "To Be Married," deals with the problem of marriage in its physiological as well as its psychological aspects; and is characterized by a coarse, almost brutal, realism which removes it from the domain of art.

Quite outside of this battle between the forces of the old and the new age stands the popular poet, Count Snoilsky, who is an extremely graceful and melodious lyricist, but deficient in vigor and passion. Similarly situated is Gunnar Wennerberg, the author of "Gluntarne"—a famous collection of half humorous, half pathetic poems of Swedish student life, which are sung by the academic youth of all Scandinavian universities. Mr. Wennerberg has, however, abandoned literature, has become a minister of state and later governor of Vexjö.

Among the poets of Sweden must also be counted the present king, Oscar II. whose "Poems by O," show a great felicity of language and a fresh and spontaneous lyrical gift. His dramas, too, exhibit vigorous character drawing, clear and strong diction, and a fine appreciation of dramatic effects. As a translator he has enriched Swedish literature with excellent renderings of Goethe's "Tasso," and Herder's "The Cid." The king's brothers, the late Charles XV. and Prince Gustaf, were also eminently gifted men, and by their interest in literature and art did much to stimulate literary and artistic activity in Sweden.

LITERATURES OF THE FAR EAST.

BY JUSTIN A. SMITH, D.D.

VI.

EPIC AND MYTHOLOGY.

How far it may be strictly allowable at the critical point of view to designate as "epics" those mighty Hindu poems, the Mahābhārata and the Rāmāyana, need not be discussed here. They are at least what may be characterized as heroic poems, and with due allowance for difference of authorship and environment may be called what Mr. Edwin Arnold styles them, "The Iliad and Odyssey of India". The former of the two, the Mahābhārata, might almost be thought intended as a library, rather than a book, the episodes to the main story are so numerous, and in some instances so extended and elaborate. In compass, too, it impresses one in much the same way.

Speaking of both these "prodigious poems", the Mahābhārata and the Rāmāyana, Mr. Arnold says: "The stories, songs, and ballads; the histories and genealogies; the nursery tales and religious discourses; the art, the learning, the philosophy, the creeds, the moralities, the modes of thought, the very phrases, sayings, forms of expression, and daily ideas of the Hindu people are taken from these poems." They are held, too, in the highest reverence. As an indication of this Mr. Arnold quotes a passage near the conclusion of the Mahābhārata, and which may be reproduced here not only with a view to show what this poem claims for itself, but as an illustration of the singular benefit supposed by the Hindus, and declared by their teachers, to result from even a reading of their sacred books:

"The reading of the Mahābhārata destroys all sin and produces virtue; so much so, that the pronunciation of a single shloka [stanza] is sufficient to wipe away much guilt. This Mahābhārata contains the history of the gods, of the Rishis [sages] in heaven and those on earth, of the Gandharvas and Rakshasas. It also contains the life and actions of the one God, holy, immutable, and true,—who is Krishna, the creator and ruler of this universe; who is seeking the welfare of His creation by means of His incomparable and indestructible power; whose actions are celebrated by all sages; who has bound human beings in a chain, of which one end is life and the other death; on whom the Rishis meditate, and a knowledge of whom imparts unalloyed happiness to their hearts, and for whose gratification and favor all the daily devotions are performed by all worshipers. If a man reads the Mahābhārata and has faith in its doctrines, he is free from all sin, and ascends to heaven after his death."

Professor Wilson describes the Mahābhārata as in eighteen "parvas", or cantos, these containing altogether one hundred thousand "shlokas", or stanzas. Other writers say of it that it is seven times greater in extent than the Iliad and Odyssey united, and that it would fill, if in English, fifteen heavy octavo volumes. The variety found in its contents, the remarkable charm of some of its more romantic episodes, and the profound revelation of ancient Hindu philosophy in that famous section of the fourth, or Bhishma parva, named the Bhagavadgita;—these features of the poem, taken with its glimpses of Hindu history, and of the heroic age of this branch of the Aryan race, combine to

rank the Mahābhārata with the most remarkable productions of the human intellect in any age.

We have spoken, heretofore, of Vyāsa as the author of the Mahābhārata. This question of authorship is involved in much doubt. As we shall find to be the case also with Zoroaster,³ or Zarathustra, there are those who regard Vyāsa as wholly a mythical personage. It is this confusion of myth with historical fact in the way so common in Hindu literature, which makes it so nearly impossible, anywhere in these writings, to distinguish history from mythology. It is perhaps safest to hold that Vyāsa was probably a real personage,—or rather, that this name, which seems to be equivalent to "arranger", or "compiler", was given to him as the completer or "arranger" of the Vedas, and later, the person principally concerned in the production of the Mahābhārata. His real name, according to Wilson, was Krishna Dwaipayana. The Krishna of the poem, an incarnation of Vishnu, chief of the Hindu trinity of gods, may have come to be confounded in some dim way in Hindu tradition with the author or compiler of the poem itself.

A learned Hindu scholar, Telang, seems on good grounds to assign that portion of the great poem which he translates, the Bhagavadgita, to a date earlier than the rise of Buddhism, that is, the fifth century before Christ. In his view, therefore, portions of the poem would seem to belong to nearly the same age as the Upanishads, those ancient works in Hindu philosophy and theosophy, which mark the earlier stage of transition from the simple Vedic faith and ritual to the cumbrous and oppressive Brahmanism of a later time. Telang, however, does not attempt to give the poem any exact date, leaving his reader, nevertheless, to infer that at least the more ancient parts of it rank in antiquity with those writings which come, in point of time, next after the Vedas themselves.

It is difficult to give within moderate compass even an outline of the story in the Mahābhārata. In very ancient times there were two princes, brothers, named Pandu and Dhritarashtra, Pandu being the elder. Pandu was, by right of primogeniture, heir to the throne of India; but was rendered ineligible by what is thought to have been some leprous taint in his blood, indicated by the paleness of his complexion; hence his name, Pandu, "the Pale". The younger brother accordingly became king, his capital being Hastinapura, a city on the Ganges, whose ruins were a few years since said to be still traceable. Pandu retires to the Himalaya Mountains, where his wife, Pritha, gives birth to three sons, Yudhishtira, Bhishma, and Arjuna, and his wife Madri to two others, Nakula and Sahadeva. These, however, are only reputed sons of Pandu, their real fathers being such divinities as Dharma, the Hindu god of justice, Vayu, the god of the wind, and Indra, who was Arjuna's father. Pandu having died and the five princes having grown up, they become aware of their title to the throne of India, and prepare to assert it accordingly.

Dhritarashtra, the reigning king, uncle to these five princes, as their reputed father's younger brother, has a great family of a hundred sons by his various wives, of whom Duryodhana is the eldest. The sons of Pandu are

evidently favorites in the poem, Arguna, in particular, being endowed with every heroic quality. Their cousins, the numerous sons of the reigning king, are represented as malignant, envious, and arrogant, these qualities being especially pre-eminent in the eldest of them, Duryodhana. The story in the *Mahābhārata* is, in brief, that of the struggle between these claimants to the throne of India, with numerous episodes involving Hindu mythology, Hindu history in a vague form, and romances of heroic adventure which often remind one of the chivalric exploits of the Middle Ages in Europe; while in the pitched battles that occur one can almost imagine that he is reading Homer, so similar are the deeds performed, with the gods interposing in behalf of their favorite heroes.

Near the beginning of the poem occurs the description of a *Swayamvara*, or what was called in the time of European chivalry a "passage at arms". It is held at the court of Draupada, one of the subordinate kings of India, whose daughter, Draupadi, is to become the prize of him who shall be declared superior in the various trials of strength and skill. The five sons of Pandu on this occasion make their first public appearance in their own true character. From this part of the poem we quote a few lines in Wilson's translation, describing the spot chosen and the preparations made for the *Swayamvara*. The "sage" mentioned is Vyāsa, himself, author of the poem:

"Attended by the brother of the king,
The sage went forth and chose the field of arms;
A level plain, where tree and bush were none
To break the smoothness of the turfy ground.
Wide was the champaign spread, and round the marge
A cool pellucid stream meandering flowed.
Within the circle pious Drona reared
An altar for an offering to the gods.
Next on the borders of the plain arose
A tall pavilion rich with gold and pearls,
And hung with trophies and the spoils of war—
With gorgeous seats provided for the king,
The peers, the queens, and beauties of the palace.
Then soon around, the busy artists reared
Numerous galleries, and tents, and booths,
To shade the throngs that from the city poured
In countless concourse to behold the scene."

Drona, the master of ceremonies, had been the teacher of the five sons of Pandu "in arms and war-like practice", as well as of the young princes in other royal families. Of the various competitors for the hand of beautiful Draupadi, Arguna wins most applause as he appears on the scene:

"But all the blooming troops in warrior skill,
And gallant bearing, Arguna surpassed;
Like him none reined the steed, guided the elephant,
Or drove the chariot; none unyielding stood
The battle onset on the level plain;
And none, with like dexterity or vigor
Opposed in single fight his practiced arm,
Whether he launched the javelin, hurled the dart,
Wielded the battle-ax or whirled the mace,
Or rapid with the trenchant falchion smote.
Nor less in peaceful virtues shine the prince;
Submissive ever to his teacher's will,
Contented, modest, affable, and mild—
Him Drona favored, and prophetic hailed
Unequaled archer 'mongst the sons of men."

Arguna, as the reader anticipates, wins the prize. Draupadi throws a garland of flowers about his neck as indicat-

ing her choice. Various incidents occur in the progress of the whole scene, in which the devotion of the Pandu brothers and the envy and malice of their cousins are made manifest. Arguna's superiority is toward the last contested also by Karna, a gigantic personage of supernatural birth, whose challenge to mortal combat, however, Arguna is not allowed to accept, because Karna is proved to be his half-brother, although at first supposed to be the son of a charioteer. Thus Arguna's triumph remains in the end undisputed.

The result of the long struggle between the Pāndavas, or sons of Pandu, and the Kauravas, the name of that branch of the royal house to which their competitors belonged, is that the former are successful, and Yudhishthira, eldest of the five brothers, becomes king. He soon abdicates, however, and departs, his brothers and Draupadi accompanying him, for the holy mountain Meru. On the way the brothers, all save Yudhishthira, one after the other die. The king himself finally reaches heaven, but is filled with consternation on discovering that his brothers are not there, but instead Duryodhana and his many brothers. He refuses to remain without them. A messenger accompanies him to the world of the lost. Here he hears the wailing voices of his brothers who implore him to remain with them. This he consents to do; but as a reward of his self-devotion he is raised again to heaven and all his brothers with him. They become celestial personages, in accordance with their supernatural birth, and it turns out that they have only "ceased to be such for a season, in order to descend along with Krishna in human forms amongst mankind, and co-operate with him in relieving the world from the tyranny of those evil beings, who were oppressing the virtuous and propagating impiety, in the characters of Durodhyaana his brother and their allies".

It becomes evident, thus, at the last, that the *Mahābhārata* is more than simply a heroic poem. It is as well a striking setting forth of the Hindu idea of deific incarnation, in the person especially of Krishna, but also of the five Pandava brothers. Of all the various examples of pagan incarnation this of Krishna is perhaps the most engaging, and is least in violent contrast with that which is made the central fact of our Christianity. The passage quoted at the beginning of this paper from near the end of the poem, where it speaks of Krishna as "the creator and ruler of this universe", describes him also as "seeking the welfare of his creation by means of incomparable and indestructible power". It is in that one of the episodes of the poem which bears the name *Bhagavadgita* that Krishna appears most prominently on the scene. In the battle of many days continuance between the competitors for the throne of India and their numerous allies, Krishna acts as Arguna's charioteer; a representation scarcely consistent with modern ideas, yet in some degree explained, perhaps, by what comes out at the end of the poem, of Arguna's own celestial birth and the high purpose of his mission among men.

During an interval of the battle Arguna and Krishna hold high converse upon certain topics in Hindu philosophy; this colloquy supplying the main matter in this part of the poem. The substance of the argument is that as the only real existence is that which is independent of all bodily form, and as bodily form is a mere appearance, death is itself only apparent, not real and formidable as it seems, is in fact a very trifling matter. Around this central idea, many of the most abstruse teachings of ancient Hinduism are grouped; Krishna revealing much concerning himself, and concerning other of the deep questions which agitate the human mind always. These are passages of great pow-

er and sublimity, along with much, of course, that is mystical and absurd.

The Rāmāyana is of much later date than at least the Mahābhārata, and it differs also from that poem in this, that its authorship is not, as in the case of the latter, obscured by mythological legend. The author of the Rāmāyana was Valmiki. His date is a question for the critics, and seems not to have been fully determined. It may have been not far from B. C. 300.

As many features of the Mahābhārata incline those who studied the subject to assign the older portions of it a date antecedent to the rise of Buddhism, which occurred, as before stated, in the fifth century before Christ, so it is thought that the Rāmāyana, since it gives so many signs of production at a time when the Brahmanical system was fully developed, may be assigned to a later period. The Rāmāyana, besides, is evidently the work of one hand, and although very lengthy, embracing, it is said, some twenty-four thousand shlokas, or stanzas, is more a continuous narrative, and constructed more in accordance with modern ideas of unity and consistency. By some it is regarded as superior to the other great Hindu epic, and is at least better suited to please the popular taste.

The Rāmāyana is an account of the adventures and achievements of Rama, who, like Krishna, proves to be an incarnation of Vishnu, though a later one. He is the reputed son of the king of Oude. The purpose of the incarnation was the overthrow and destruction of a ruler in Ceylon, a powerful and wicked person, demonic in origin. Under this mythological guise, the poem is interpreted by some as a legendary story of the conquest of Southern India by the Aryans, at some early period of their history. Others view it as a description, in mythological style, of that contest between the Brahmans and Buddhists which brought to a close the ascendancy which the latter had gained in India, thus restoring Brahmanic supremacy.

Rama's mother having died, his father's second wife succeeds in supplanting Rama and securing the inheritance of the kingdom for a son of her own. Rama leaves the court

with his wife Sita, whom in the meantime he has won, and who clings to him in his misfortune. They make their home in the wilderness. After some years the father dies, broken-hearted at the loss of his favorite son. The son who succeeds him finds out Rama and invites him to return and take the kingdom. Rama refuses; proceeds upon his expedition against the demon-ruler of Ceylon; defeats and destroys him, and then returning ascends the throne of his father, in place of the brother who abdicates, and thenceforth rules happily.

Of course, this meager outline gives no idea, whatever, of the poetical merits of the Rāmāyana. It abounds, not only in romantic adventure, but also in pictures of domestic life in India, some of which are wonderfully beautiful and engaging. Rama wins his wife, Sita, by bending a bow of immense strength, in which other suitors for her hand had failed, and proving by means of this his surpassing skill in archery. Their life in the jungle is full of marvelous incidents. In his conquest of Ceylon he exhibits the superhuman power proper to one who is really a deity in human form. He enlists on his side bears and monkeys of the wilderness, the latter of which are represented as themselves a progeny of the gods. He constructs by supernatural means a bridge from the main-land to Ceylon, and after crossing kills in single combat the ten-headed giant, Ravana, from whom it was the whole purpose of his mission, as himself an incarnate deity, to deliver the oppressed people of the island.

The story thus gathers more and more of a mythological tone as it proceeds. In the early part of it, however, especially in descriptions of Rama's childhood, we find the human element comparatively free, and in passages revealed with singular beauty.

It is an example of the service rendered to literature by Christian missionaries, that the earliest attempt at an edition and translation of the Rāmāyana was by Drs. William Carey⁴ and Joshua Marshman⁵, who edited and translated the first two books, publishing their work at Serampore about the year 1808.

SUNDAY READINGS.

SELECTED BY JOHN H. VINCENT.

THE ENTHUSIASM OF THE CROSS.

But God forbid that I should glory save in the cross of our Lord Jesus Christ, by whom the world is crucified unto me, and I unto the world.—Gal. vi., 14.

[March 4.]

There are many things in history which would make us laugh, if one did not rather feel to cry over them. The pathos outweighs the humor. One of the inexplicable things, which becomes exceeding tragic, is that men and women will never seem to learn how God calculates force.

It would seem that four thousand years, more or less, of known history ought to have told us something. Yet if you ask a man whether a certain desirable reform can be carried through or not, he at once looks about him to see what other people say. He makes a shrewd calculation: "So many will be disaffected by this phase of the movement, so many will take offense at that. What do the leaders of opinion say?"—reminding one irresistibly of that question intended to settle once for all the claims of a certain Jesus of Nazareth: "Have any of the rulers believed on him?" Why does he not look within to hear what God says? "God is not dumb, that he should

speak no more." This man's failing is, that he does not calculate on all the forces. A large paper army never startles the Almighty out of His plans. He who fought on the side of Gideon's three hundred men is not to be put out by obstacles. There are no Quaker guns in His armament.

Never yet has any just thing been done by the majority of forces on which men calculated at the outset to accomplish it. For every just advance there has been, in the long run, an overturning of existing machinery, and principle has come uppermost. It is a fatal mistake to calculate the secondary forces, but to leave out of account the dynamic power which set them in motion. Why should not a man take counsel with the truth? Why not ask: "Is this thing which you propose right? Has it the ring of sincerity and worth about it?" Then will it succeed, and not high-handed earth nor dark-browed hell shall prevail against it.

What is the teaching we forget as fast as taught, and which makes history the least effective of teachers? Simply that the calculable forces are not the ones which win a victory. When a reform first makes its appearance, the world

established and conservative is dead set against it. Every victory worth anything to mankind has been on behalf of a principle not before recognized; or, if recognized, disregarded and trampled on. Every best and lasting reform has been won in opposition to the leading forces of the time which would keep things as they are. The force that triumphs is a conviction which lays hold of the true men and women—the seers and martyrs—among humanity, and these few sweep the activities of the multitude over to the side of the new dispensation.

The impulsive force of the world is the enthusiasm of love. See where it takes its place among the world forces which impel men to action. The expressions or developments of force of which men make use in this world are ordinarily reckoned as three. First and lowest are the physical or material. These are the elements which exist to be moulded, and form the basis for the upbuilding of activities.

Then follow the forces of the intellect and will. These control the lower or material. It is these which mark out the designs of civilization, and impress themselves on the material in the shape of art and inventions and utilities.

But these intellectual forces can not be left alone. In themselves they carry no blessings beyond their own narrow circle. Intellectual sympathies are not necessarily wide; indeed, the forces of the mind are naturally selfish.

Intellectual activities resemble the fountains in public squares, from which bright and cooling waters spring up, but which flow back within themselves and do not run out to make the grass greener and the flowers fresher. We enter the region of the affectional nature before touching the inspiration of sacrifice. The enthusiasm of personal love will reach the hidden springs of heroism and devotion, and all the energies of disinterested character will flow forth in beneficence. This faculty it is which gives life to the other elements of human power, and makes them of worth in human development. Personal love awakens enthusiasm. It is one thing to descant on the beauties of home; it is quite another to have felt parental love growing stronger and more tender the more exactions are put upon it.

[March 11.]

There is an enthusiasm which moves the spiritual nature. To the question whether it has a worthy object, Paul's reply is that this object is the service of him who is the power of God unto salvation. But its symbol—what is this? It is the cross on which malefactors are executed. Can this symbol be worthy of that which it represents? Paul thinks so: "But God forbid that I should glory, save in the cross of our Lord Jesus Christ, by whom the world is crucified unto me, and I unto the world." I am startled whenever I think of this scene. "An ugly little Jew," as Renan calls him, sets himself against the world. He adopts as his own the tenets of an obscure and despised sect, so far with no one man of commanding genius or eminence among them. And with their religious faith, the faith of ignorant men, very like to be fanaticism and superstition, he faces the learning and established ritual and legalized religions of the world. What advantages did he have to offset these disadvantages? Not personal appearance and graces, for he tells us—with how much of the exaggeration of modesty we are not sure—that his bodily presence was weak and his speech contemptible. He did not possess eloquence, at least not of the recognized and dominant kind. Yet he attacks eloquence in its high places and power in its capital.

But perhaps the attractiveness of the message excused the deficiencies of the herald. Was his message, then, a winning one? Think of a man's preaching at the court of the Cæsars a crucified malefactor as king of kings and lord of lords! Think of heralding within the Academy and beneath the Porch a carpenter's son of isolated Galilee as commanding the mind and demanding the assent of the will because this is reasonable! It is fanaticism carried to insanity.

Certain it is that this man's ideal, within a short time as history counts time, did dispossess other conceptions of greatness. Is there anything stranger in history than his triumph? And whenever you look through his biography you find one explanation, and only one—the enthusiasm of personal love. In short, this persecuted, oppressed, ostracised man goes triumphing through his history, and the secret of his rejoicing is the cross of Christ.

What was there in the mere thought of the cross to inflame this talented soul? The answer is here: the gospel of which the cross is the symbol, differs from all other plans for relieving the pain and distress of the race in its inspiration. The difference in motive power captivated this clear-sighted, large-souled man. Men are ordinarily inspired by the things which captivate and attract the imagination, which promise glory, which flatter us that we shall bear rule.

Paul was aglow with the inspiration of service. "I am among you as he that serveth," his Master had said, and the wonder of it had caught up to a third heaven of emotion the generous soul of this apostle. For a new element has entered human life. Men had been dealing in preparatory stages, and there had been needed for their education a use of the sterner elements of the divine nature. But now is the fulness of time for the supreme disclosure, and there appear the mother-elements in God. He stands forth not so much as the everlasting God, the Creator of the ends of the earth, who fainteth not, neither is weary, and whose understanding is not searched out, but as He who draws upon His power that the forsaken and hedged-about and discouraged may not utterly fail.

Do we not get before us that which moved this impressionable apostle? Grant that man does not come to his highest. Grant that he revolts and becomes almost unmanageable, that the height to which he rises is scarce more than a valley among the hills. How is man best worked out from his animal nature until he comes to mind and spirit? By the action of some loving and commanding soul brooding and bringing out his nature. . . . God sets himself to develop man by the impact of soul upon soul; until, as a harp is struck into sound when in the presence of an organ in full play, our souls feel the impress of God and respond to his grace. No wonder that, breaking over a night of chaos and a dull morning of cloud, the appearance of the Sun of Righteousness should have been an inspiration. Here is the enthusiasm of the Christian—a God able to lift the souls of men, and by His sacrifice showing His readiness to do so.

[March 18.]

There are many to whom the cross has become almost a by-word and reproach. They are fair-minded Christian people, but the glorious idea of the cross has been so obscured by cant phrases, has so suffered from the easy-going tongues of a shallow pietism, that many prefer in their inmost souls to say nothing about the cross rather than that so sacred a symbolism be ignorantly and superstitiously trifled with. Yet must there be some way of reaching the true ideas which center about this conception. In our search for them, I re-

mark that *the essential element in the cross is a higher power suffering for a lower.*

Nothing goes forth from a lower condition except by the path of suffering. From the seed buried in the ground, which breaks its husk or shell in order to expand into a plant, up through all powers of organic existence until we reach the human soul, wherever there is life there is suffering. When we come to the higher walks of living things the suffering is vicarious. A human being enters life by the portal of vicarious sacrifice. What is true of the body is true of the soul. How shall we be born again into the image of him who created us?

The necessity of an atonement is laid in the constitutions of our natures. Let us say, of the atonement, for there could be but one. To turn the faculties upward, to give them the likeness of that which they may become, voluntary suffering is demanded on the part of that power which alone possesses the ability to raise men. How shall a child, selfish, animal, grasping by nature, be brought to understand self-sacrifice, except as the father and mother with wondrous patience practice a voluntary self-denial, until by degrees this character grows upon the forming mind of him for whom they suffer and deny themselves. Now of himself God says this: "I have borne you all the days of old!" "Like as a father suffers together with his children, so the Lord pitieth them that fear him." And the symbol which by consent we use to express this love is the instrument by which historically the consummation was effected. It would seem that every generous manly or womanly soul must feel the inspiration of this self-sacrificing love.

To preach Christ crucified is a too solemn matter to make boast of, yet in full view of its deepest meaning one can glory in nothing else. Here is a world ill at ease; here are strifes and discords; here are failures in business—men wealthy last week do not know how to support their families this; here are accidents; and men and women seeking health and recreation meet sudden death on the way; here is the whole round of overbearing perplexities and dangers. And to this world there comes a power sent to fashion a world redeemed and placed in the highway of holiness. O, my friends, we glory in nothing save the cross of Christ—the power of a new life to human souls.

To substitute anything in place of the living Christ is a most pious fraud and solemn mockery. The simple followers of Jesus were Christians long before a single article of faith had been formulated. Definite intellectual convictions do not constitute one a Christian, nor the lack of them make one an infidel. Infidelity is unfaithfulness, not unbelief. It is of the heart, not the head. "Ye are my disciples, if ye do whatsoever I command you," said our Lord. His command was, "Take up your cross daily"—the daily cross of daily right-living—"and follow me." He adds, "Freely ye have received, freely give." In the famous twenty-fifth of Matthew, the standard of judgment is an appreciated and a consistent human helpfulness. Clearly the inspiration which Jesus asserts as characteristic of his followers is the inspiration of service. I do not read my Bible aright if preaching Christ crucified is anything else than to herald this soul-uplifting power. In this enthusiasm of personal love has been from the beginning and will continue to be found the impelling motive to missionary enterprises—in a devotion personal and profound.

[March 25.]

Understanding what the essential element of the cross is, we see that it *must needs lay hold of those elements of human nature conspicuous for their inspiration.* Love, joy, peace,

long-suffering, courage, faith,—these are the elements. Is there one with which you are not in fullest sympathy? Not one morose, ill-tempered, self-aggrandizing faculty can attach itself permanently to the cross. You meet some people, and lo! the door of a sepulcher has been opened; they breathe upon you, and your aspirations wither and your affections shiver. Others bring to you a gentle warmth, a gracious, a tender affection, and fill you full of the most wondrous life.

A man tells me he has no difficulty at any point of doctrine presented to him, and I think, Here is a man mistaking blindness for sight or a hypocrite pretending to a knowledge he knows he has not. But when a man tells me he finds it hard with all his strivings to satisfy himself that he is doing the Lord's work, I feel, Here is one reaching, however imperfectly, toward the standard of Christ. I am glad of this ideal.

These inspirational elements are helpful signs of new life. What are the disturbances of late in the religious world, but an attempt to realize more fully the glory there is in the cross? I do not blame one who has seen some of the truths of the ages for being tenacious of them, or for wanting others to recognize something of their value. I only blame any who stand to bar the way of those who see a new golden streak across our once dark sky. I blame men only whenever they stand out against the larger flights of the soul. I bless God for these growing days. You and I may represent but poorly the enthusiasm of the cross; but it is wholly generous—not formal, not cross, not despotic—this new inspiration.

Have we as individuals taken up this enthusiasm? If you were called to some narrow, guarded gospel, some old ragman of tattered and scarred righteousness, you might hesitate. But when the call is to an enthusiasm as broad as life, will you refuse? Behold Almighty Love has been brooding you; shall the outcome be a feeble, flaccid, outworn soul? Has the Lord Jesus been touching the faculties of your soul to no purpose? . . . Divine love has been brooding some of you now these five, ten, twenty years; will you then utterly weary the Holy Spirit, before you reach forth the hand toward the lips that spake as never man spake, saying: "Tell them once again to me, wonderful words of life?"

Or do you think we should reveal none of the power of this enthusiasm in our collective Christianity? The present trials of our Christianity, which arise more largely from unfaithfulness than from unbelief, will the most surely be met as men and women are united in a common service. . . .

"Far be it from me to glory, save in the cross of our Lord Jesus Christ, by whom the world is crucified unto me, and I unto the world,"—not removed from the world. Whoever struggled more bravely to live than this same apostle Paul? Not separated in isolated righteousness, who ever went more freely among men, that he might by all means save some? But crucified unto the world, and the world unto him, in that nothing compared for a moment in his mind with the service of men and of God through men. Yes! I believe in the enthusiasm of the cross. Not a poor, maimed, restricted, geometric plan of salvation, but a gospel as wide as humanity in its lost condition, and a gospel—and this is the glory of it—enlarged to every necessity and rebellion and wandering of those whom it uplifts. This is the gospel I love, and not others; this it is to preach Christ crucified,—that power which can catch the human soul, exalt it, inspire it as by music from another world, and leave it at last exultant and triumphant before the throne of God. So broad is the conception which seems to me to center in the cross of Christ. This is the love which passeth knowledge. —The Reverend Henry Elliott Mott.³

THE HOMES OF SOME SOUTHERN AUTHORS.

BY C. W. COLEMAN, JR.

IV.

In the extreme northern part of Virginia, in the famous Shenandoah Valley, were born Philip Pendleton Cooke (1816-50), one of the sweetest singers of the old South, and his novelist brother John Esten Cooke (1830-86), whose busy hand and brain found rest little more than a year ago.

The poet read law and began its practice in the town of Winchester, soon abandoning it, however, but not without having triumphed in at least one important suit, winning the hand of a beautiful girl who dwelt a few miles out of Winchester in a fine old mansion, erected for General Morgan by Hessian prisoners released on parole for the purpose, the mansion receiving the appropriate name of Saratoga. The young couple soon retired to a country seat in the same region. The Vineyard, taking its name from a tangled net-work of luxuriant wild grape-vines, is an irregular brick house set on the crest of a commanding hill and encompassed by fine old forest trees—oaks, chestnuts, and the flowering poplar. Its long piazza overlooks an extended and superb landscape. Fit home for a poet truly. And the picture is a very pretty one, too, with the young husband and wife and their little ones in the foreground.

But a shadow fell upon it all too soon. When not yet thirty-five years old the poet died of pneumonia, leaving a few published short stories, an unfinished novel, and "Froissart Ballads", a little book of poems, with a single one of which his name is now generally associated—the lovely song of "Florence Vane". This is unjust, for the volume contains much else worthy of remembrance. Though Philip Cooke, the leisurely, cultivated country-gentleman, no more regarded himself a professional *litterateur* than did Wilde, the active lawyer and statesman, they were poets of rare sweetness and as such deserve a wider recognition. And the fame of each rests upon a single lyric!

John Esten Cooke also read law and soon abandoned its practice to follow the more alluring path of literature to his life's end, save for the four years of the War when he served in the Southern army, most of the time on the staff of "Jef" Stuart, of whom he wrote a biography. First and always a Virginian, from "The Virginia Comedians", one of his earliest productions, to "Virginia: a History of the People", his latest and possibly finest, the truest source of his inspiration was always Virginia.

On his marriage soon after the War he went to live at The Briars, an old fashioned brick country-house in his native valley. It is here that we may look for the picture of his home life. A study fairly littered with papers and books, books on the window seats, chairs, tables, and floor; the walls ornamented with pictures of his comrades in arms; a room made cheery by many windows and a wide fire-place. Here he worked untiringly; for changed conditions demanded the play of every energy, and he wrote "for bread, not fame". The early death of his wife threw upon him the care of his young children, to whom he devoted himself with the tenderness of a mother; his little boys—from whom he was never separated and for whom he wrote his charming "Stories of the Old Dominion"—having their special corner in his study. Under these conditions he produced a long line of books, story and biography chiefly; and while no one of them is of the first order of excellence, B-mar

among "Bonabel Vane" and its fellows are novels of no inconsiderable merit, and the "Virginia" must take high rank among books of its kind.

Toward the southern end of the Valley of Virginia in the college town of Lexington lives the Southern poet of Northern birth, Mrs. Margaret J. Preston. This charming little town, situated among the most beautiful of mountains, has been her home since girlhood, her father having been the predecessor of Gen. Robert E. Lee in the presidency of Washington College, now Washington and Lee University. By long residence and family ties Mrs. Preston has become a thorough Virginian. Her verse gives token of this, as well as of a classical education and the cultured atmosphere in which her life has been spent. Her first literary venture was a novel, but her poetic career began with "Beechenbrook", a touching story of the War told in verse, written by the light of "Confederate candles"—wooden torches so placed upon the hearth as to illuminate the room. Since then half a dozen volumes of poems have appeared under her name. Literature, she declares, is the pastime of her life, adding, "to be wife, mother, mistress, hostess, and neighbor has been my chief mission." All this she is—and poet, too—in her mountain shadowed home on the borders of Lexington.

V.

It is a little remarkable that the two foremost poets of the South, poets whom the world has claimed, should have been wanderers, though from very different causes. With this in common, the lives of Edgar A. Poe and Sidney Lanier (1842-81) differed utterly.

Lanier was born in Macon, Ga., the birthplace of his poet brother Clifford, and still the home of their father. Coming to manhood at the outbreak of the War, with it his wanderings began. The four years of its duration he passed on battle fields and in a prison—always with his flute, the lover- rival of his singing voice. He might have been a great musician, and was in a certain sense, had he not chosen to put poetry first. After the War, during which he had contracted the seeds of consumption, began the life-long search for means of family support and strength to deliver his message. Alabama, Florida, Texas, Pennsylvania, Virginia, North Carolina, all were tried; but no climate could check the disease. In this exile Georgia seemed most like home.

"Oh might I through these tears

But glimpse some hill my Georgia high uprears."

His poems are full of Georgia and of her from whom he was so constantly separated, that most sympathetic poet's wife, by whose eyes in his, he said,

"I ken far lands to wifeless men unknown."

Not until the final settlement in Baltimore, where was made "as brave and sad a struggle as the history of genius records", was he for any length of time united to his wife and children. And here, the poet eking out subsistence by lectures in private schools and Johns Hopkins University and playing the flute in the Peabody orchestra, the home was a rented house changed three times in four winters. In it there was little enough of luxury (at first not even a sufficient number of chairs and the meagerest furnishing) and the ever-present shadow of disease; and not until the very

last did he have that dearest and wellnigh indispensable sanctum to a literary man, a "den". But through it all the consciousness of a divine gift, a message that must be told, kept the poet's life atune to the beauty of his verse, until the end came after manful struggle. In that wonderful poem, "Corn", he tells what a poet should be; and this of all men he was most truly.

In Baltimore he first found free access to books, and whatever else his home might lack, there was always the implicit faith and encouragement of his wife and music in plenty—his flute, a piano, and a mocking-bird, that "died of a cat", now made famous like Keats' nightingale. In the only novel he ever wrote, he says, "To make a home out of a household, given the raw materials—to wit, wife, children, a friend or two, and a house—two things are necessary, these are a good fire and good music. . . . Music means harmony, harmony means love, love means—God." By this token Lanier found a home at last.

To Georgia also belongs Paul Hamilton Hayne (1830-86), the "laureate of the South". To him, as to many another Southerner, the War brought financial embarrassment; and so it chanced that the humble little cottage of Copse Hill, near the village of Grovetown and sixteen miles from Augusta, became the home of the last twenty years of his life. It is a frame house of four rooms, on a small farm of which only the garden spot immediately about the house is under cultivation. Here luxuriant Southern roses shed their sweetness and color, and clematis climbs about the doorway and low-covered porch, and with the fragrance of roses mingles the resinous odor of numerous pine trees. To the poet's ear there is no more suggestive voice in the world than that of the pine, save that of the sea; and Hayne has made them sing together in one of his sweetest lyrics:

"I love these pines because a soul is theirs
That ever whispers of the infinite sea."

The interior of the whitewashed cottage in decoration and furnishing is unique and pleasant to look upon, an effect produced by means of the simplest, most unpromising materials, and the deft touch of a woman's hand. Out of a carpenter's bench, used when the house was built, was constructed the desk at which the poet always stood while writing; the dainty book-cases holding the two thousand volumes of his library were once dry goods boxes, and the plain pine walls have been transformed into a veritable picture gallery, every inch being covered with wood-cuts from various American and foreign periodicals. All this was the loving work of the woman who was "the inspiration, the stay, the joy of his life". Hayne before the War knew better circumstances and lived in Charleston, S. C., where he edited *Russell's Magazine* at one time; but there could never have been for a man of his temperament a sweeter home than this simple, cozy little cottage under the Georgia pines, almost out of the world except for the railroad near by. Hallowed by his pure and gentle life Copse-Hill is still the home of his wife and son William, who, following in his father's footsteps along the steep of Parnassus, already holds a good place among younger verse-writers. There is a movement set on foot by the ladies of Grovetown to erect there a chapel for a memorial of the poet.

While Lanier and Hayne have been crowned with the name of poet—a big word often too carelessly used—other Georgians have achieved enviable reputations in other fields—Richard Malcolm Johnston by his "Dukesborough Tales"; Joel Chandler Harris by the negro folk-stories so inimitably told by "Uncle Remus"; and Maurice Thompson by charming bird studies and essays, as well as the "Songs of Fair Weather" and several novels.

In the middle hill country of Georgia, in a frame building a story and a half in height with lower wings on either side, Mr. Johnston lived, in the little town of Powelton—his own Dukesborough. In his youth the "old-field" schools, and, later, his career as a lawyer, brought him into intimate relations with these people, to whom in recent years he has introduced us. After the War he removed to a pleasant country-house, Pen Lucy, near Baltimore, where he opened a large boy's school. Under the oaks and chestnuts of Pen Lucy most of his delightful stories have been written, reminiscences of old Georgia days and early associations.

Mr. Harris, who is now on the editorial staff of the *Atlanta Constitution*, lives in a handsome house of the Queen Anne style. He is also a native of the middle hill country, beginning life in a much humbler dwelling. But it was here and while serving as printer's apprentice on a tiny country newspaper that he learned the myths and stories which he has preserved, thereby endearing himself to every Southern heart and winning a reputation abroad, since strengthened by other literary work all done in "off-hours".

Though now state geologist of Indiana, Maurice Thompson passed his early life among the Georgia mountains, and his writings show strong Southern influences. His first home here was a roomy log affair amid wild mountain scenery, soon changed for a village residence, and, lastly, for a typical plantation-house with woodbine-covered verandas, near the Oostanaula, a wild and beautiful stream winding between the hills. Here he had access to the best books of several languages and first dreamed of a literary career, and from here made frequent excursions into the dense forests, once penetrating to Lake Okeechobee, noting specially the habits of birds and absorbing the color since instilled into his writings. His Georgia home was in Sherman's path and, says Mr. Thompson, "there was not left much of its beauty and comfort when the army was done with it".

VI.

The last named writers belong to that lengthening list of men and women associated with the most recent movement in Southern literature, whose published productions can, in many instances, be taken only as a hopeful sign of yet higher achievement. The old order has changed, rather out of the old the new has been made.

As a writer George W. Cable belongs to the city of his birth, of his inspiration, though for some years past a resident of Northampton, Mass. He is most methodical in his working-habits, entering his study—a room almost as bare of ornamentation as shops of other sorts—at nine in the morning, with the regularity that of old he entered the New Orleans counting-house before he had made of literature a profession, there remaining until five in the afternoon. The daily stint completed, he goes for a brisk walk or drive, preferring the former. His New Orleans home was high up in the American town, in what is known as the "Garden District", one of those high-galleried houses under semi-tropical foliage, not unlike that of the Granddissimes and others described in his novels.

This picturesque, foreign-seeming city is the home of Mrs. Mary Ashley Townsend, a poet of Southern warmth and color; of Miss Grace King, one of the newest and most promising writers of Southern fiction; and, until quite recently, of Lacardio Hearn.

St. Louis is now the home of Charles Egbert Craddock (Miss Mary Noailles Murfree). But it is well nigh impossible to associate her with the brick and mortar right-angles of a great town, indeed with any other region than the mountains and "coves" of her native Tennessee.

Grantlands, her birthplace, a country-seat near the town

of Murfreesboro', is part of a grant of eighty thousand acres made by the government to her great-grandfather, Major Hardy Murfree, of North Carolina, in acknowledgment of services rendered during the Revolution. The plantation was the battle field of Murfreesboro' in the late War, and is the scene of her first novel, "Where the Battle was Fought". After the War the family, in reduced circumstances, gave up their handsome house in Nashville and retired to a small cottage, Murfree's Rock, near Beersheba a little watering-place in the Tennessee Mountains, where they had formerly spent the summer months. While living in this cottage, perched on the verge of a crag overlooking miles of wild mountains and charming valleys, Craddock made the acquaintance of the people about whom she has written with masculine strength. The family afterward returned to the dismantled mansion of Grantlands, and have since then removed to St. Louis.

A number of other Southern women have recently handled "pen, ink, paper, and brains" with marked success. Somewhat akin to Craddock's in subject-matter, though differing materially in treatment, is the work of Miss M. G. McClelland, who has passed her life in a rambling old house, Elm Cottage, among the Virginia mountains, a spot so secluded that not until the last few years has it been startled by the shriek of the locomotive. Also in the Virginia mountains is Castle Hill, the home of Miss Amélie Rives, whose published work has arrested the attention of critics and piqued the curiosity of the reading public. It is a fine old mansion erected in part a century and a quarter ago, the home of a long line of distinguished ancestors, embellished with much of the beauty and luxury of the nineteenth century.

Two other Virginia novelists, Miss Frances Courtenay Baylor and Miss Julia Magruder, live in old-fashioned country homesteads near Winchester. Another Southern woman whose career as a novelist has been much longer than any of these, is Miss Fanny Fisher, better known as

(The end.)

GLASS MAKING.

BY DR. JOSEPH D. WEEKS.

Of all the industries that have contributed to the happiness and advancement of mankind, glass making holds no secondary place. While it may not be classed as a necessary art in the earlier and ruder states of society, with advancing civilization it becomes indispensable. To our homes it brings a thousand comforts and luxuries. It gratifies our taste for the beautiful, and gives to the fast waning sight of age new vision. In our workshops its products find uses on every hand, and what a part they have played in the noble discoveries of science. To the glass maker the astronomer goes when he would peer into the vastness of space above and count its worlds and tell their make. That little piece of glass we call a lens gathers and throws upon the sensitive plate the wandering rays of light from stars that no eye but His own, and possibly those of His angels that behold His face, ever saw, while another bit of glass in the microscope reveals a world of beauty and life compared with which ours is unsightly and inanimate.

When glass was first made and who made it we do not know. The oft repeated story told first by Pliny, of its accidental discovery by some storm driven Phœnician mariners, while cooking their food on the banks of the River Belus, is not entitled to the least credence. There is posi-

Christian Ried, who occupies the old homestead of her family in Salisbury, N. C. In this connection should be mentioned a poet whose career began long ago, Mrs. Rosa Vertner Jeffrey, of Lexington, Ky.

The young lawyer of Richmond, Va., Thomas Nelson Page, who won for himself so enviable a reputation by his story of "Marse Chan", was born in a plain old plantation house in Hanover County, situated at the junction of two great roads leading to Richmond, along which the armies of the late War were constantly marching. At that time Mr. Page was a small boy, and upon his mind the doings about Oaklands made a lively impression, from which "Marse Chan" and "Meh Lady" have resulted. The house at Oaklands was built by the slaves of the family a century ago. Here after the War Mr. Page learned to handle a hoe, before it became possible, under the altered circumstances of the family, to obtain for him the desired collegiate and professional education. Though by no means regarding literature as purely a pastime, he makes the cultivation of this talent entirely subservient to his legal career.

To Robert Burns Wilson, the artist-poet of Kentucky, one of the many younger verse-writers, has been accorded a most cordial recognition of brotherhood by the older votaries of his art. He lives in Frankfort, a little city most picturesquely situated among the hills of the same name, through which the Kentucky River has cut a narrow cañon-like passage. Here should be noted Samuel Minturn Peck, of Alabama, a singer of graceful society verse; and Julie K. Wetherill, "a shy little country flower blown upon a Mississippi plantation".

Besides these there are other writers who can not be included here, who, nevertheless, are doing effective service in the cause of letters. As stated at the outset, the present purpose has been to speak briefly of some of the older and some of the latest Southern writers and the atmosphere surrounding their daily lives, not to cover the whole field.

tive evidence in the tombs of Egypt that the art was well known long ages before the Phœnicians made the Mediterranean Sea a "Phœnician Lake". It is not at all improbable that its discovery was in connection with the older arts of metallurgy or pottery, the slags of the former being glasses, as are the glazes of the latter. All of the oldest specimens of glass are colored and the coloring matter is metallic. It is very possible that these old glasses are only metallic slags remelted and cast.

However this may be, inscriptions, paintings, and the glass itself indicate that it was made in Egypt at least from four thousand to six thousand years ago. Glass blowing is unmistakably pictured on the tombs at Memphis and Beni-Hassan and on one at Sakkara older than either of these.

The processes used by these early glass makers were, in many respects, similar to those of the present day. The "batch" was melted in crucibles, and the glass-blower's tool pictured on the Beni-Hassan tomb might well be taken as a representative of those in use at Pittsburgh to-day. Cast glass appears to have been a common product both of the Egyptian and the Phœnician glass houses, and molds were also used both for blowing and for pressing. Some of

the hollow ware gives evidence of being made on wire molds, and other specimens indicate that the glass was molded around a core or "former" of sand. Pressed glass, however, was not made as American pressed glass is formed, a die being used, into which the glass was pressed, or the die was pressed into a mass of pasty glass. The perfection to which these processes were carried, however, will not compare with that attained to-day.

Egypt, in the days of its best glass making, could not produce a cast plate approaching in size, purity of the glass, or brilliancy of surface those of Pittsburgh, nor would her blown and pressed ware compare with that of the United States. It must be conceded, however, that some of the specimens of ancient glass that have been preserved, especially such as are evidently the result of careful, patient manipulation, are unsurpassed by the products of our modern glass houses, as they not only display a high degree of art, but give evidence of such exquisite skill and a knowledge of the most refined and delicate processes that even now they excite unbounded admiration. Among these products may be mentioned embossed and molded reticulated vases, glass mosaics, imitation pearls, glass pastes in several colors, precious stones, glass eyes, the beads of mummies, and bottles. This perfection, however, is only seen in articles of luxury, and indicates a degree of skill on the part of the workman that justly entitles him to be called an artist in the highest sense of the word, and the product to be termed a work of art.

While all this may be said of the skill displayed in working the glass when made, the "metal" as glass itself is technically termed, was decidedly inferior to that of the present day. White glass, as we understand whiteness, was unknown, and the clear, white, brilliant flint glass of our works to-day would have excited astonishment in the Egyptian and Phœnician glass houses. Most of the specimens that have come down to us from these ancient glass works are articles of luxury, and therefore might give rise to the belief that most ancient glass was of this character; but such is not the fact. Glass of an inferior quality, for common use, was largely produced, and it is probable that it was much more extensively employed by the ancients than in our time. They had no porcelain, and were forced to use metal vessels or those of glass for many of the uses for which porcelain is now employed.

And what is this beautiful, polished, transparent thing we call glass? Go into any glass house, and in a long low wooden box on wheels, like the kneading trough of a baker, you will find a gray, sometimes red, sandlike powder with pieces of broken glass called "cullet" through it. This is the "batch" of the glass maker and contains the materials which when melted make glass. The essential constituents of glass are silica and one or more metallic oxides. The silica is generally used in the form of sand. The chief oxides are soda, lime, potash, and oxide of lead. Other oxides, as those of zinc, tin, barium, and antimony, are sometimes employed in glass making; and other materials, as manganese, arsenic, and the oxides of tin and copper, are found in glass, but these latter are present as coloring matter, as impurities, or as materials used to correct impurities.

The silica used in glass making is mixed in the "batch", in the form in which it enters the glass. With the metallic oxides it is different. These are derived from some of the salts of the metals. Soda, for example, is mixed in the "batch" not as soda, but as the carbonate, sulphate, or nitrate of soda, or chloride of sodium; lime and potash, usually as the carbonates. Lead, however, is mixed as an ox-

ide, usually as minium or red lead, or sometimes as litharge. In the melting, these carbonates, sulphates, etc., are decomposed, the soda, lime, potash, and lead mixing with the sand to form the glass, and other elements of the compounds passing off as gas or in the "glass ball" or "sandiver", as the scum on the molten glass is termed. The action of the heat in the furnace, in addition to decomposing the salts of the batch, is to fuse the silica, which acts as an acid, and the soda, lime, and other oxides, which play the part of bases, into silicates. Glass, however, is not a simple silicate, but is a fused mixture of two or more of the silicates so formed. Sheet, or window, and plate glass are silicates of lime and soda; lead-flint, of lead and potash; lime-flint, of lime and soda; while green bottle glass is a *farrago* of silicates of soda, potash, and lime with iron, alumina, etc.

Let us follow these materials until they leave the factory ready for use. The "batch", this mixture of sand with lime or soda or potash or red lead and cullet which have been thoroughly mixed, is wheeled to the furnace to be thrown into the pots to be melted. These pots are large fire clay vessels, holding, in some cases, four thousand pounds of batch. They are placed in the combustion chamber of the furnace on a raised bank or narrow platform called a "silge", having opposite openings in the side, through which the "batch" is charged, and the molten glass withdrawn. The flame for melting comes up around and between the pots from below, the fire-place being called the "cave".

The pots being heated to a white heat, the batch is shoveled in, allowed to melt, which requires some twenty to twenty-four hours, then to "fine" or clear itself of bubbles and other flaws, which require some two to four hours, and then to cool slightly so as to become viscid, which takes half an hour longer.

As soon as it is cooled, if the glass is to be blown or pressed, the glass blower or worker's assistant runs an iron tube into the molten glass and "gathers" on the end of it sufficient glass to make the object desired. If the glass is to be cast, the furnace is opened and the full pot removed to pour.

There are three chief methods of working glass,—casting, pressing, and blowing. Casting and pressing are closely related processes, and blowing and pressing are often combined to produce certain forms of glass. Glass is also manipulated in many ways that do not properly fall under either of these classes, but they are of minor importance, and either are subsidiary to one or more of these three methods, or are, strictly speaking, re-working glass.

The first of these, casting, is used chiefly for making the glass that is known as "French plate". All being ready for casting, a pot filled with the molten glass is removed from the melting furnace, placed on a truck and run to the casting table. The pot is lifted from the truck by a crane, is suspended over one end of the table, and tilted, and the viscid, semi-fluid mass being poured out, the roller is moved forward, flattening the glass, and rolling it to a uniform thickness, while the "gun" prevents it from spreading to a greater width than is desired. As soon the plate has solidified sufficiently to bear moving, it is laid in the annealing oven on the "flat" to slowly cool. All the operations are performed with the greatest rapidity that the plate may be as hot as possible when laid in the oven.

After the plate has been sufficiently annealed, which requires from three to five days, it is removed. It is now rough and uneven and must be ground, smoothed, and polished, all of which is done by machinery. The grinding and smoothing are accomplished by rubbing two plates to-

gether with sand or other grinding and smoothing material between them, the plates being afterward polished on another machine by the aid of buffers and rouge. It is then cut to the size required or that which its imperfections will permit.

In pressing, which is the process by which most of the common forms of table ware are made, a metallic plunger, the size and shape of the inside of the vessel to be made, is driven into a metallic mold, representing the outer surface of the vessel, and in which molten glass has been placed. The glass takes the form of the mold on its outer surface, while the inner is molded by the plunger. Pressing is usually done by a press consisting of a table, a plunger, and a long lever operating the plunger. The mold is usually jointed so as to open readily and discharge the glass.

The molten glass having been gathered and dropped into the mold, a sufficient quantity is cut off, the mold is pushed under the plunger, and the long lever at the right of the press is pulled down. The plunger enters the mold, the glass is pressed into all parts of the same, the plastic glass solidifies, the plunger is withdrawn, the mold opened, and the glass in the required form is withdrawn to be fire-polished and annealed. If too much glass is cut off, the article is too thick; if too little, it fails to fill the mold and the article is spoiled. Though this is quite a simple operation, and though as great skill as in the old method of glass blowing is not required, considerable practice is still necessary to gather the right amount of metal and to cut it off so as not to waste glass, and also to keep the mold at the right temperature. If it is too hot, the glass will adhere to the die and plunger; if too cold, the surface will not be clear and transparent.

Blowing is used chiefly in the production of window glass, though as noted above, it is sometimes combined with pressing, the glass being pressed into the sides of the mold by the force of the air blown into it through the gathering tool.

In blowing window glass after gathering the amount of metal required, generally about twenty pounds, the workman rolls the gathered glass on a block of wood so hollowed out as to allow the lump when placed upon it to be extended by the blower to the diameter ultimately required. Here it is shaped into a solid, cylindrical mass, water, in the meantime being applied to the block to keep it from burning and to give brilliancy to the surface of the glass. When the mass of metal is sufficiently formed and cooled, it now being of a pear shape, the blower raises the pipe to his mouth at an angle of about 75°, blowing into the glass and turning it in the wood block until the requisite diameter is reached. It now has the appearance of a hollow flattened globe. This mass is then re-heated, and when it is sufficiently softened, the workman begins swinging it over his head, re-heating and swinging in the pit until it has reached the desired length, which is about forty-five inches. This is the most difficult part of the operation, uniformity of substance and diameter being chiefly the result of the skill of the workman, who, when he finds the metal running out too freely, holds the cylinder vertically above his head, still keeping it filled with air, and then by dropping elongates and thins it. The cylinder is now, say, forty-five inches long by twelve inches in diameter, one end being closed and the other having the pipe attached to it. The thinner cylinders are opened by the workman blowing into the pipe and stopping it with his finger, and at the same time applying the lower end to the fire, when the air inside is expanded and the point of the cylinder bursts open, this being the hottest

and most yielding part. The aperture thus made is widened out to the diameter of the cylinder by subsequently turning the cylinder to and fro with the opening downward.

The thicker cylinders are sometimes opened by attaching a lump of hot glass to the end, which thus becomes the hottest and weakest part. The blower forces it open, as in the case of thin glass. The opening is enlarged by cutting it round with scissors. This method is used in preference to opening it in the furnace, as it occasions less waste. The other end, which is attached to the pipe is now cut off by the workman, who, having gathered a small quantity of metal on his pontil, draws it out into a thread and wraps it round the pipe end of the cylinder, letting it remain for an instant, withdrawing it suddenly, and immediately applying a cold iron to the heated part, when it cracks where the hot string of glass had been placed. The weight of the cylinder, as finished, is about two-thirds that of the lump of glass which the gatherer collected. The finished cylinder is now split open either by a red hot iron or by diamond, which, attached to a long handle, and guided by a wooden rule is drawn along the inside of the cylinder, the edge of the glass being rubbed with a cold iron, as in the case of disengaging the pipe.

The cylinder is now ready for the flattening oven, which is generally a circular oven with a revolving bottom, composed of a number of stones as smooth as possible. The cylinder is laid in the oven with the split side uppermost, and is soon opened by the flame passing over it, and falls back in a wavy sheet. The flattener now applies another instrument, called the polissoir, which is a rod of iron furnished at the end with a block of wood, and rubs down the waviness into a flat surface, often using considerable force. The flattening stone is now moved to the coolest portion of the furnace, the sheet is delivered by means of the flattening fork to the cooling stone, and from this, when sufficiently rigid, it is lifted and is placed on its edge and annealed in an annealing kiln, or laid flatwise on iron carriages, which are conveyed through a long annealing chamber, called a lehr. When annealed they are examined, cut into a size that the defects will permit, and packed.

These are the chief processes of glass making as practiced in this country. By them are made the glass for every day use, the fine French plate and the blown cylinder glass for windows and mirrors, all forms of table ware, and that class of articles including lamps, chimneys, and shades, known as lamp goods, as well as the endless variety of bottles.

The limits of this article will not permit of a description of the processes, even of the chief ones, employed in the manufacture of articles of glass that in an artistic sense are of a higher class, the beautiful colored glass, the brilliant, sparkling flint, the rich engraved, cut and decorated forms, as well as the many other products of the glass maker's art that can not even be named.

In none of the processes of glass manufacturing or in its after manipulations are the glass houses of the United States surpassed. Its plate glass equals that of St. Gobain and the Belgian glass houses; its cylinder glass equals the Belgian; its common lime-flint pressed glass surpasses that of Europe in whiteness, in polish, in beauty. Some of the most beautiful colored glass produced in the world, rivaling in depth and richness of coloring, as well as in beauty of design that from the famous works of Europe, is made by the Phoenix Glass Works, near Pittsburgh, while the cut flint made at this works, in brilliancy of metal, in beauty of design, and in skill of cutting equals the products of the best glass houses of the Midlands of England.

THE SITUATION IN EUROPE.

BY C. K. ADAMS, LL.D.
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The rumors of war which for some months past have kept European affairs in a condition of feverish unrest, can not be adequately accounted for by the mere study of the events which seem to connect themselves most directly with the prevailing excitement. The roots of the present always extend far back into the past; and the impossibility of explaining the predominant tendencies of a people, or a period, without knowing a good deal of antecedent history, was never more strikingly illustrated than it is in the present condition of Europe. All of the larger continental powers have for some years deemed it necessary to be in a constant state of readiness for war. To the casual observer each one seems to be afraid that some one of the others will secure some possible advantage in the way of preparation, and then that some untoward event will bring on a struggle which will result, not only in a general conflagration, but also in a very considerable changing of the map of Europe. And yet, there is scarcely one of the great powers that does not deem it a misfortune to be obliged to devote its energies so largely to the mere keeping of its forces on a war footing.

Why, then, can not some way be devised by which armies can be disbanded and the implements of war be converted into implements of peace? It is one answer to say the reason is the same as that which will not permit us to convert our policemen and constables into artisans and shopkeepers. But that answer is not enough. There are, after all, certain tendencies that are not amenable to that kind of treatment. It is in a study of these tendencies that a true explanation is to be sought.

There have been two great settlements of European affairs in modern times that may be said to have had something like the commanding influence of a European constitution.

The first of these, the Treaty of Westphalia¹, exerted a predominant influence from 1648 until it was torn to pieces by Napoleon at the beginning of this century. For a hundred fifty years there was no time when it was not appealed to as the source of final authority on all questions of general international importance. Exceptions to this rule were more apparent than real; as the wars of Louis the Fourteenth² and those of Frederick the Great³ proved.

When we come to the period of Napoleon, however, we find the wars dominated by an entirely different class of motives. Napoleon's victories in Italy swept away governments that had been duly recognized and protected by international authority; and put Murat⁴, Napoleon's brother-in-law, on the throne of Naples, with something like general authority over the whole of the Italian peninsula. Victories in Germany resulted in a similar defiance of the established order of things by creating the confederacy of the Rhine, and putting another member of the Bonaparte family on the throne. The crown of Sweden was put on the head of a soldier whose highest distinction was the fact that he was the husband of one of Napoleon's sisters.

Similar designs were doubtless entertained for Spain, and perhaps also for Russia and the larger German states. But, in due course of time, disaster came; and when the victorious powers assembled for a final settlement, they found that

the venerable Treaty of Westphalia had been sacrilegiously riddled into shreds and that the pieces were hardly worth patching together into the old form. Affairs, in fact, were as unsettled as they had been at the close of the Thirty Years' War, and a new treaty of comprehensive and binding import was imperatively demanded. The work of the Congress of Vienna and of the supplementary treaty of Paris was the result, and Europe was once more brought to a state of international equilibrium.

From 1815 to 1866 nothing occurred that can fairly be regarded as infringing seriously upon the provisions or the principles adopted by the powers at the close of the Napoleonic wars. The revolutions of 1830 and 1848⁵ were confined in their scope to affairs of a domestic nature. The Crimean War had for its object the pushing of the Russian frontier a little nearer to the Mediterranean, and when Russia was finally defeated, there was no occasion to interfere with the territory or the independence of any of the powers engaged. Then, too, when the Schleswig-Holstein movement⁶ brought Prussia and Austria into collision, in 1866, the dispute was one in which no other than a German state was likely to have any material interest.

North of the Alps all had been done in reasonably strict regard for the limitations imposed by the Congress of Vienna. But on going into Italy we come upon a palpable violation of international rights. Italy and Austria had been brought into unfriendly relations in the beginning of the century by the outrageous conduct of Napoleon in detaching Venice from Italy and putting it under the tyrannical domination of Austria. There had been half a century of discontent. At length affairs in Italy, guided by the deft hand of Cavour⁷, showed signs of working irresistibly toward a final and triumphant consolidation under the House of Savoy. The people of Lombardy and Venice, though subject to Austrian domination, had never ceased to be Italian in sympathy as well as in speech. They longed to throw off the heavy yoke of Austria, and there was nothing in international usage to hinder Italy from attacking Austria in order to win back Italian soil. But when France interfered, the case was different. It is interesting to note that as it was Napoleon the First who broke up the Treaty of Westphalia, so it was now to be Napoleon the Third⁸ who was to undo the settlement that had been established by the Congress of Vienna. As a result of the alliance between France and Italy, Lombardy and Venice were turned over to Victor Emanuel⁹, while the Emperor of the French was not above taking Savoy and Nice as a reward for his services.

Though this was the first instance since 1815 of foreign interference for purposes of conquest, the act was not resented by the European powers; probably for the reason that there was a more or less general acknowledgement of the commendable nature of the object attained. But the great fact could not be disputed nor overlooked that one of the great powers had ventured to interfere in support of what was virtually a war of conquest entered into by one of the secondary states against an unfriendly neighbor.

It was not long before a second of the powers showed a similar spirit of independence. At the close of the Crimean War, the Treaty of Paris placed upon Russia the obligation

not to put a fleet of war ships into the Black Sea. Though this obligation was accepted as a part of the penalty for defeat, yet when the hands of France and Germany were busy about Paris in 1871, the Russian government gave notice that the obligation thus imposed would no longer be respected. Germany and France were not in condition to enforce the treaty, and England single handed was little disposed to attempt so large a task. By this act of Russia, therefore, the treaty of 1856 was practically destroyed.

Ever since the famous tour of Catharine of Russia¹⁰ and the Emperor of Germany¹¹, the one line of policy from which the Russian government has never swerved has been a desire to seize every possible opportunity for pushing the frontier toward the south and the south-east. Peter the Great¹² pushed his frontier about five hundred miles toward the west and then gave his country an outlet for a few months of the year by transferring the capital to the new city he had built on the Neva. He made heroic endeavors to establish a still better outlet in the sunny waters of the South. He was unsuccessful; but the idea and the desire have amounted to what may be called the persistent and fundamental policy of the Russian government. Again and again the government of the czar has sought cause of quarrel in the South and East, in order that it might bring this policy a little nearer to realization. The Crimean War, even, did not blast her hopes. Almost immediately afterward we find the seat of her greatest enterprise transferred from the south-east of Europe to the heart of Asia.

Americans are generally quite unaware of the magnitude of Russian conquests in the extreme East. The last thirty years have been years during which the south-eastern frontier has been pushed no less than about twelve hundred fifty miles toward the Persian Gulf. Something of the significance of this movement in Asia may be inferred from the simple statement that the territory conquered by Russia since 1856 is about a thousand miles square. The frontier of the czar is at last within striking distance of Herat, that singular stronghold, which, ever since the time of Alexander the Great, has been regarded as the gate of India. By the treaty of July 22, 1887, the boundary line is within fifty miles of this famous northern gate of the great peninsula of the South.

But, in the meantime, Russia has not by any means been idle in the South-west. Of far greater consequence than the Persian Gulf is the Mediterranean. During the last generation no opportunity has been neglected for seizing upon any advantage, however slight, that might offer itself on the borders of the frontier of Turkey. Whenever the objection is raised that the control of the Balkan peninsula by Russia would be less objectionable than its control by Turkey, the answer is easy. The Turkish government may undoubtedly be regarded as a disgrace to civilization, but still it is under the protection of public law, and it can no more be abandoned to individual spoliation than can any individual malefactor. No nation, in defiance of established guarantees, has a right to undertake to call another nation to account for its internal disorders; but twice, at least, Russia has assumed such a task for herself.

Once the government was adroit enough to blind the eyes of the most of Europe and America to the real question at issue. Even the English government, usually so watchful of its interests in the East, was deceived into thinking that Russia meant no harm. The recent war between Russia and Turkey came on, and Russia was soon at the gates of Constantinople. It would, of course, have been easy, but for foreign interference, for the victorious armies to have driven Turkey out of Europe. Such a result was prevented, how-

ever, by the firmness of Lord Beaconsfield who had now succeeded Mr. Gladstone. An English fleet was dispatched to Constantinople, and Sepoys were brought from India to Malta. These vigorous measures, however, were not enough to prevent the Treaty of San Stefano¹³ which stripped Turkey of one-half of its territory in Europe. The English government regarded this as a flagrant violation of international rights and as a menace, not only to the possessions of England in the East, but also to the international interests of Europe itself.

It was in view of this condition of affairs, that the Congress of Berlin was brought together in 1878, through the attitude and influence of England. Its purpose was to reconsider the work of the Treaty of San Stefano, to undo what Russia had so defiantly accomplished, and, so far as was practicable, to re-instate international authority for the settlement of all questions of international importance.

It is unquestionably true that Germany ever since the war of 1870, has sincerely desired peace. No attempt to analyze the course of that great statesman whose name exerts its magic in the determination of every international question of Europe, can be successful on any other theory. Bismarck, however, has been obliged to deal with strangely conflicting interests. France has kept vigorously alive the remembrance of her defeats, and her several governments have never for a moment relaxed their efforts to put the nation in a condition to seize any opportunity for revenge. The relations of Russia and Austria have been more delicate and critical even than those of Germany and France, for the reason that the condition of Turkey has afforded an ever present possibility of an immediate outbreak. Russia can not assume control of the Balkan provinces without putting herself in an attitude of perpetual menace to Austria; and therefore Austria finds herself obliged to watch every movement in the South with the utmost vigilance. Until very recently Bismarck, while adopting in general a neutral policy, has appeared to incline to throw his support into the scale of Russia.

There was a large class of Russian agitators who clamored for an aggressive policy. The virtual leader of this party was Katkow¹⁴, and he called loudly through his journal, the ablest and most influential in Russia, for an open declaration of policy on the part of Germany. When Bismarck tried to mediate between Russia and Austria, Katkow declared that there was no ground for mediation, and that if Germany was really the friend of Russia, the Chancellor must insist that Austria should have nothing to do with the Balkan provinces.

But, in the meantime, efforts in another direction were not neglected. In the autumn of 1886 the Russian government made direct advances to Italy. The question was asked whether in the event of a war between Austria and Germany on the one side, and Russia on the other, Italy would join with the northern power. The Austrian city of Trieste was offered as the price of such an alliance. Almost simultaneously France made a similar offer of Trentino as the price of an alliance in the event of a war with Germany. Both of these offers were in singular violation of international obligations and were flatly refused by the Italian government. The movement was doubtless a concerted one, and is at least interesting as showing that neither France nor Russia would be bound by international considerations.

While Russia and France were thus drawing themselves constantly nearer together, several events occurred to weaken the apparent friendliness of Russia and Prussia. The death of Katkow served rather to make conspicuous than to diminish

the dissatisfaction in Russia with the course of Germany. Signs began to multiply that the policy of Russianizing the frontier territories had been entered upon with renewed vigor. The Catholics in Poland and the Protestants in the Baltic provinces were oppressed with increasing severity; and in May, 1887, an imperial ukase forbade any foreigner to remain or to become a landed proprietor in Russia.

Both of these courses of policy bore with especial severity upon Germany, for the reason that a large number of German Protestants lived in the Russian provinces on the Baltic, and not a few of the German nobility owned estates within the Russian domain. It was becoming too evident that the former cordial relations between Russia and Germany no longer existed. This disclosure, together with the new relations between Russia and France, made it obvious enough that Germany must either depend upon her own resources, or look elsewhere than to Russia for support. She determined to do both. Bismarck thought it prudent to call for additional provisions for men and arms, and when they were refused he instantly dissolved parliament and appealed to the country. Everybody remembers with what an overwhelming majority the people rallied to his support. The strength of the army and of the fortresses has already been very greatly increased.

But Germany was not to be left alone. When, last summer, Bismarck met the Austrian ambassador, Count Kalnoky, at Friedrichsruhe, he found it easy to arrange a treaty of alliance. By that treaty, Germany and Austria came to a complete understanding and were bound firmly together for offensive and defensive purposes in case of war.

A matter of still greater importance was the alliance that was immediately afterward brought about with Italy. Soon after the Austro-German treaty was signed, Bismarck invited Signor Crispi, the Italian premier, to visit Berlin. There was every reason why a friendly alliance should be agreed upon. Both Germany and Italy desired peace; and both of them knew that the interest of peace would be subserved by making the opponents of war as formidable as possible. Moreover, Italy remembered with gratitude the former service of Germany in ridding her of foreign domination. The question, therefore, was simply a matter of details, and these were easily arranged. So quietly was the affair conducted that the world knew nothing of it until the whole was accomplished. Crispi afterward said that when the alliance was definitively agreed upon, the Chancellor remarked, "We have rendered a service to Europe".

The details and the significance of the alliance were soon given to the public without reserve by Crispi in a speech at

Turin. He declared that Italy had never been in such complete and hearty union with any country as with her present ally, and that her interests had never before been so fully guarded and guaranteed. But one fact more needs to be noted. Signor Crispi also revealed the existence of a maritime alliance with England. By this alliance, it is provided that in case of war the fleets of Italy and Great Britain will act in common. The significance of this agreement is more far reaching than might at first be supposed. The maritime supremacy of England, united with the powerful naval strength of Italy, would probably be enough to protect the coasts of both countries and leave a large part of the Italian army free to act if need be on foreign soil. It is quite within reason to say that the boundaries of Italy could be properly garrisoned and that a residue of three hundred thousand men could be safely devoted to the general interests of the alliance. The united fleets would not only be able to protect the coasts of Italy but probably also be strong enough to guard the general interests of the alliance throughout the Mediterranean and Black Seas.

The fortunate circumstance in the present situation in Europe is the fact that however diplomatic circles may be temporarily ruffled by rumors of war, it nevertheless remains true that the newly allied powers are all opposed to war. The probability that peace will be maintained is very greatly strengthened by the fact that Germany, Austria, Italy, and England are firmly bound together and that no one of them is likely to pursue any aggressive policy, unless it be for the purposes of defense. These powers, moreover, have always adhered to the binding force of international considerations, and in theory as well as in practice have considered themselves bound to observe the general determinations of the several powers acting as a whole. In this fact is a strong guarantee of peace.

Russia and France would probably not hesitate to lay hold of any pretext for war, if they could see a reasonable prospect of success. But no such encouraging view is now open to them. The alliances recently contracted must present a formidable barrier to their ambitious designs. Meanwhile it is doubtless true that the French thirst for revenge and the Russian thirst for the waters of the South are unabated. We also do well to remember that the most thorough and vigilant preparation to meet an attack with overwhelming defeat, is the most perfect guarantee that no attack will be made. It is in these two views that the present enormous military strength of Europe finds its adequate explanation. These stupendous armaments have their fundamental cause in the unscrupulous ambitions of France and Russia.

THE UNFOLDING OF PLANT LIFE.

BY BYRON D. HALSTED, Sc. D.

II.

In the previous article the reader was reminded of many things he knew before. He learned over again the essential features of the seed. It is the offspring of the plant and carries with it, on its longest journey, the characteristics and peculiarities of its parent. It is small that it may go with the winds or be carried along by the floods, and hard thick coats protect it from harm while it travels and during its periods of inactivity. Along with the little plant there is a quantity of nourishment designed for its support during the process of unfolding and getting established in the soil.

Even such seemingly inactive bodies as seeds have their

"day", and if during that period they fail to obtain the favoring conditions for the breaking of the seed coats, there is nothing that will save them. Seeds, in other words, will die as natural a death as the plant which might have developed from it. The seedsmen or dealers in these germs or promises of life, which have been prepared and packed for shipment by the provident parent, are well aware of the fact that old seeds are, as a rule, not so good as new ones and the deterioration is due to age. Some kinds of seeds will not live for more than one year, others survive for two seasons, while many, having a greater tenacity of life, may last for many years. If we only knew all the facts it might possibly

be stated that the expectation of life of any kind of seed bears a certain relation to the average life of the mature plant.

If seeds do die a natural death even when placed under the most favorable conditions for their existence, it is not unnatural to infer that changes are taking place within the tissues of the germ. In its own way the seed is active and as this structure is the most dormant form which vegetation assumes, it is not extravagant to suggest that the standing tree is never at perfect rest and with all its forces in exact equilibrium.



FIGURE 1.

In the seed the seat of vitality was located in the germ, or plantlet, and all other parts have been considered as dependent structures, each with some function either in the preservation of the germ in its undeveloped condition or for the feeding of this offspring when it bursts its fetters and begins to take upon itself the duties and dignity of a self-supporting plant. It is therefore natural to seek in the winter state of a mature perennial plant those portions which correspond most nearly to the germ in the seed, and determine, if we can, what parts are protective and treasuries of nourishment.

The writer has just returned from a brisk walk in the cold winter morning air. All vegetation is in seeming repose, but this season of rest reveals some things which are hidden from view when the life currents are coursing freely and every tree and shrub is covered by a mantle of refreshing green. There are structures now to be seen which might be looked for in vain during midsummer.

Our perennial plants prepare for the winter season and as successfully hibernate as the bear or muskrat. A tree, for example, is not alive in all its parts. The heart wood is dead and remains as an essential support to the living layer which surrounds it and connects the vital system in the soil with that which is spread out in the air and sunshine. All young parts make up the living portion of a tree, and this means the multitudes of fine roots deep in the soil, the small branches, and a layer varying much in thickness which lies near the surface of all older parts and connects the young underground system with that which is aerial. The subterranean portion is out of reach of the suddenly changing conditions of the atmosphere and needs no material protection. The heavy covering of bark shields the tender layer of all stems and large branches. We have therefore only to look at the tips of the young twigs—those recently formed—and note any provision made for their winter life.

In summer each twig is elongating and bears at its extremity a soft mass of small leaves which as a whole can be easily crushed between the thumb and finger. If zero weather should come in June, it would quickly prove by its sad havoc that plants while in the vigor of growth are in no condition to bear extreme cold. The young tender tips of the branches would waste away as if touched by a red hot iron. But how different are the ends of the branches as seen on this frosty winter morning. Some of them were brought in and figure 1 shows one of them. The tip of the branch called a bud is much enlarged and over the whole surface is a brown coat of varnish. This keeps out the wet



FIGURE 2.

of winter rain or melting snow. Next within are the thick, closely-fitting leaves, called bud scales. They firmly overlap each other and are provided with a quantity of long hairs on the underside, so that literally the scales are fur-lined. Within the coats are snugly ensconced the stem and leaves which are to unfold during the next growing season.

A bud which is at the end of a shoot or branch is known as a *terminal* bud, while those which occupy a position upon the side of the stem are called *lateral* buds. In figure 2 are shown three lateral buds and below them is the scar left upon the stem by the leaf, the base of which occupied the same position. Lateral buds as a rule are produced in the angle which a leaf makes with the stem above its insertion or base. It, therefore, follows that the leaf arrangement determines the disposition of the buds upon the sides of the stem. If the leaves are opposite, as in the maple, the buds will be two or more at a *node*, or joint, but where the leaves alternate or are arranged in a spiral running up or down the stem, as in the willow and apple, then the buds are usually one at a node and form spirals also.

A bud is an undeveloped stem—a young shoot before it has elongated and hung out its leaves to catch the air and sunshine. They are, therefore, the principal seats of vitality of a plant, and when the tree or shrub is required to bear severe low temperatures during a period of inactivity these vital parts need to be protected in the manner briefly pointed out. The shoots become stored with nourishment in autumn and put on extra heavy overcoats to save the tender parts within from being injured by too sudden changes from heat to cold or cold to heat.

Figure 3 shows a longitudinal section of a bud with its many scales closely packed around the delicate tips of the branch. While the embryo is the vitalized portion of the seed, the tender extremity of the stem is its counterpart in the bud, and all other structures are for its protection and support.

It is not unusual for buds to perform the same function of seeds, namely, the formation of new colonies of plants entirely separated from the mother colony. Thus the bulbets at the base of the leaves of the Indian-shot lily fall from their attachment, take root in the soil, and grow into new plants.

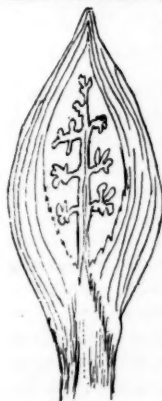


FIGURE 3.

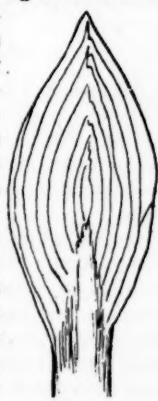


FIGURE 4.

When the gardener propagates his verbenas or geraniums by slips or cuttings, he is only taking advantage of the localization of a plant's life in its buds. He separates these buds along with a little of the stem above and below, and places them under favorable conditions of warmth and moisture when they will form new plants. In like manner the orchardist inserts a bud into the growing portion below the inner bark and one kind of peach or apple is made to grow upon the roots and stem of another sort.

Buds are of two kinds as to the nature of the stems which are to develop from them. Up to this point the only thought has been that they unfold into stems of the ordinary sort and thus continue the old stem, when a terminal bud, or begin a side shoot as is true of lateral buds. There is, however, another sort of bud which when unfolded

becomes a flower or a cluster of flowers. It is not our purpose to discuss here the structure and function of flowers, and for the present it only need be said that they are the necessary forerunners of fruit and seed, and therefore the flower buds are of no less importance than those which develop into woody stems bearing foliage.

In figure 2 the central bud is of the latter sort, while the one on each side is destined to unfold into maple blossoms. The horse-chestnut tree offers excellent examples of flower buds, and one of these is shown in figure 4. It will be seen that the central portion of the longitudinal section is quite different in structure from figure 3 which is a leaf bud of the same tree. At first sight there is something which might be mistaken for a small tree with its central stem and several side branches arranged in regular order. The upright stalk is the main axis of the flower cluster and along its sides are clusters of minute flower buds or undeveloped blossoms. It would not be impossible for a person, with a microscope, to determine in autumn the exact numbers to be unfolded in each great flower-cluster on a large horse-chestnut tree.

This kind of tree makes its winter buds early in the season and spends much of its time and energy in getting them very perfect. When spring comes the great thick



FIGURE 5.



FIGURE 6.

scales open and the stem grows rapidly for a few weeks and then begins again to prepare for another winter and another spring. The forethought or provident habit of many of our hardy trees might well be worthy of imitation by those persons who seem never to think that hard times can possibly come.

The second chapter in the unfolding of plant life is the germination of the seed. Nearly the same conditions are required for this as for the opening of the buds. Warmth, moisture, and a supply of air are the chief essentials. It is easy to associate these with spring because then they obtain everywhere in the soil in our climate. Seeds, however, may be germinated at any time of year artificially and for the investigation of the process it is best to place the seeds in cotton or between folds of blotting paper kept moist and

warm. There is no need of either soil or darkness—two conditions often considered essential.

The first step in germination is the absorption of moisture by the seed which before was comparatively dry. This process swells the contents of the seed and bursts its coats. Soon the tip of a root makes its appearance and, after elongating for a short distance, it turns downward. At the same time the short stem begins to increase in length and in a direction opposite to that of the young root. With many kinds of seeds the ruptured coats are carried up by the stem and may remain attached to the cotyledons for some time. Other sorts are provided with a structure which develops for the special purpose of removing the coats while they are still under ground. The coats are, at least, of no further use to the young plant and are not unlike the outgrown garments of a child.

In the dicotyledonous plants, of which the bean was taken as the type, the cotyledons are the first leaves to appear above ground, but they are oval, thick and very unlike the earliest genuine foliage which unfolds from the progressive plumule. The different parts of a young bean plant, only one week after the dry seed was dropped in the soil, is shown in figure 5. Below ground is a branching root system which is actively engaged in searching for the hidden stores of plant food. Midway up the slender stem are the seed-leaves; they have supplied the seedling with much of its required nourishment at a time when no other source was available. Soon they will fall away and leave the stem free from their nearly dead weight. Above are the unfolding pairs of heart-shaped thin green leaves, in the tender pulp of which the sunshine labors so mysteriously for the production of sustenance. The roots can only find, absorb, and transmit to the stem the crude compounds of the earth. In the leaves the sunlight sifts and arranges these, with others coming from the surrounding air, and weaves in its loom the compounds which baffle the constructive genius of the wisest chemist of this age of chemistry. Day by day the bean climbs higher adding pair after pair of leaves until sufficient strength has been gained to undertake the exhaustive process of flower-making and seed-production.

Figure 6 indicates the appearance of the young corn plant which is in striking contrast with the bean. The grain remains under ground and becomes partly surrounded by the many roots which arise in various directions from the germ. There is no evident stem and the leaves clasp each other as if dreading the separation. Each long slender blade uncoils from the center of all the older ones. After a time the stem appears and at its top is a tassel of flowers. First there is the blade, but in due season the full corn in the ear is the year's reward of the industry of the corn plant.

The bean and the corn alike round the circle of their short existence with seed-production. The old plant lives only in the harvest. Not so entirely with the tall oak and the lowly shrub. Seed may have been produced along with the new, annual increase of wood. The summer's sunshine has left its record in enlarged stem and multiplied branches. Each unfolding bud has developed and in its place are several, all following the same law of self protection. In summer's sun they prepare for winter's cold, and in winter they are not altogether idle for existence then is an exertion.

LIFE AND MANNERS.

BY THE REVEREND LYMAN ABBOTT, D.D.

I.

WHAT IS YOUR LIFE?

Vanity of vanities, saith the preacher, vanity of vanities; all is vanity.—*Ecclesiastes*.

Life is real, life is earnest,
And the grave is not its goal;
Dust thou art to dust returnest
Was not spoken of the soul.

—*Longfellow*.

Which of these two views of life one takes will depend upon what is his point of view. He who takes Falstaff's estimate of the world, "the world is mine oyster," and tries to see what he can get out of it for himself, will always come to the preacher's conclusion,—vanity of vanities, all is vanity. He who looks upon life as a great opportunity to do for others, and to become somebody himself will come to Longfellow's conclusion.

The first is the estimate of the cynic; it is that which is found in Thackeray's "Vanity Fair"; it is expressed again and again in the writings of Dean Swift; it is the conclusion of Voltaire and Lord Bolingbroke; it is uttered by Lord Byron in the lines, "Life sparkles but at the brim"; it is the judgment phrased by the cynic Jacques, "The world's a stage, and men and women only players". Who the preacher was is not known. The early critics think him to have been Solomon; the later critics, some unknown writer in the time of the exile; some students regard Ecclesiastes as a biography, others as a realistic drama in monologue. It is not very material to determine, whichever view we take of the Book, the preacher's conclusion is the conclusion of one who has had rare opportunity to get out of life all that life can give him, and records this as his verdict. He has tried wealth: "I builded me houses, I planted me vineyards, I made me gardens, and orchards, and I planted me trees in them of all kinds of fruits." He has tried pleasure:—"I said in my heart, go to now, I will prove thee with mirth; therefore enjoy pleasure." He has tried philosophy:—"I gave my heart to seek and search out all wisdom concerning the things that are done under heaven." But neither pleasure, nor wealth, nor philosophy gave him aught but vanity. He squeezed the orange three times, with mirth-getting, with money-getting, with wisdom-getting, and at the end had only an empty rind in his hand.

Life is not a game of "button, button, who's got the button," with its message, "Hold fast all I give you," and its end, empty hands for most, and the useless button for the favored one. He who takes for his motto, "Get all you can and keep all you get," will invariably come to the preacher's conclusion, sooner or later. The man who, at the end of life, leaves no inheritance of wealth or wisdom for the generations who come after him, and takes with him no character ennobled by brave living and unselfish serving, is a bankrupt indeed.

If we are to talk together, my readers and I, about "Life and Manners", we must first agree what life is, else we shall talk at cross-purposes, and come only to mutual misunderstanding. I believe that Longfellow is right, that "life is real, life is earnest"; but it is real and earnest only to him who understands its uses. It is a great opportunity; and its opportunity is interpreted by two words, doing and being.

I. It is an opportunity to do for others. No man knows how to live who does not know that the secret of life consists in studying not how to get the most out of it, but how to put the most into it. The world is a joint stock company; he is richest who owns the most stock, and he owns the most stock who has made the largest investment. The world to-day is richer, wiser, happier, and better than it was fifty years ago. Who made it so? Our fathers, yours and mine. By their industry they added to its wealth, by their learning to its wisdom, by their benefactions to its happiness, and by their probity to its worth. If they had taken much and given nothing, the world would have grown poorer by the process. We shall have lived in vain, in very truth we shall not have lived at all, unless we shall have done something by our lives to leave the community in which we live, as our fathers left the community in which they lived, richer, or wiser, or better by our living.

Pleasure is not the end of life. Pleasure has its uses, but it is a means not an end. It is the oil which keeps the machine of life from creaking, and grinding, and wearing out. He that would give his fellows a happy life needs to live happily himself. He who has a hearty laugh in a company, a laugh which leaves a sweet remembrance afterward, has conferred no small boon and this is a boon because we are better fitted for our work because of our merriment. No recreation is real, which does not re-create. He never has a good time who lives only that he may have a good time. Fame is not the end of life, fame is only the shadow which a man casts, and the shadow depends more on the place where the man happens to stand than upon his size. If fame were manhood, then not God but newspapers would make men. Just at this writing they have more to say about John L. Sullivan, boxing and bruising with English pugilists, than of Gladstone or Bismarck. But will any one imagine that the boxer and bruiser has contributed more to life than the statesman? Fame is a token of success in life, but there are many false trade marks; men with the stamp of success upon them, but without the real qualities of success in them. There is many a Belshazzar whom cultivated courtiers applaud, while an invisible hand writes upon the wall, "Thou art tried in the balances and found wanting".

Wealth is not the end of life. Wealth is power, and life consists not in the possession of power, but in the right use of it. We measure the bird not by the gilded cage, but by the song; the horse not by his trappings, but by his speed; a man not by what he has, but by what he is. There is an unconscious satire which we continually utter on ourselves, when in answer to the question, what is such a man worth, we reply so many thousand dollars, as though manhood could be measured by dollars and cents; as though the market value of man was like the market value of pork, only the man worth something more to the pound.

Life is not enjoying, nor seeming, nor getting; life is doing, and being. He lives most, not who laughs most, shows most, or has most, but who does most and is most. James Harper gave sententiously the estimate of all noble living, when he said, "My problem has always been to see, not how few, but how many hours I could labor." This is the secret of all true living, because the problem of every true man is to see how much he can add to the sum of humanity's true

wealth. Of all current lies there are few more pernicious than this, the world owes me a living. The world owes you nothing, unless by your own achievements you have made it your debtor. The man who imagines that the world owes him a living, has taken the first step toward knavery; the second step is taken, when he tries to collect the debt which is not due him. The greater his success the greater thief he is, if he takes out of the world more than he has put into it.

We live says Bailey⁴, in deeds not years; then he only lives who has done some deed into which he has put his life. The world's great men have all been men of great achievements; but few of them have been men of great wealth. While the man lives we sometimes count him greatest who possesses the most, but when the man dies we count him greatest who has done the most. Moses cradled in the bulrushes; Paul making tent-cloths with his own hands; Luther earning his first bread by singing carols from door to door; Lincoln earning his precarious livelihood by hard handiwork; Grant beginning life in comparative poverty, and ending it by holding death at bay, with one hand, while he earned a competence for his family, with the other; these are the world's typical great men; they have truly lived because they have nobly wrought for others. Not the minister most talked of in the press, but the minister who has done most to inspire noble manhood and womanhood in others; not the merchant who has the largest bank account, but he whose material ministry has done most to enrich the nation with the harvest of wealth; not the mechanic who by bullying the labor market has gotten the biggest wages, but he who with manly pride in his work sends forth from his hands true workmanship; not the farmer who has added the greatest number of acres to his farm, but he whose well-tilled land sends forth the greatest food treasures for the hungry, are the men that really live.

II. If life is doing, life is still more being. Character is more than achievement; to be is more than to do. It may be a question what makes a successful man; but it is certain that above all he is a *man*. If manhood makes life what it is, life makes us what we are; and he truly lives who putting wealth of some sort into life takes wealth of character out of it. Great men make great epochs; but great epochs also make great men, and he only knows how to live who knows how so to take life's lessons that he is greater and nobler for its teaching. Luther made the Reformation, but the Reformation also made Luther. If there had been no anti-slavery conflict, Abraham Lincoln would have been a country attorney, or at most a lawyer of reputation not running beyond the bounds of his own state. If there had been no Civil War, Grant would have been a leather merchant with small profits, if indeed any. Luther, Lincoln, and Grant lived because they allowed life to make something out of them, because they co-operated with life in the making. Plenty of monks in the Middle Ages, who had glanced at the chained Bible, and found nothing in it; plenty of Kentucky boys who had all Lincoln's advantages, and remained rail-splitters to the end of their days; plenty of colonels, to whom the door stood as wide open as to Grant, and who knew not how to enter in. You see an artist with his canvas before him and his brush in his hand. Is he a good artist? We will wait and see what sort of a picture he paints. You see the potter with his clay and his revolving table before him. Is he a fine workman? We will wait and see what he makes of the clay on his revolving table. Do you who read this paragraph know how to live? The portrait you are painting, the vessel you are fashioning in yourselves can

alone answer that question. Only we are not made of flowing colors or moldable clay. Man is a bit of *repousse* work, and is hammered into shape blow on blow. He lives who so takes the blows that they shape him in some divineness of character.

No man can judge what either his character will become, or what his achievements will be, from his present opportunities or his present attainments. We must prepare ourselves before the opportunity, or when it comes it will be for us no opportunity at all. David would have done nothing in his duel with Goliath, if he had not as a boy, without ever seeing the use he would make of his skill, practiced long with his sling and come to be by practice an expert marksman. When Lord Erskine⁶ had that unexpected opportunity to address the King's Bench, the opportunity which embraced, made his fame and fortune, he could have done nothing with it, if it had not been for previous patient study. Napoleon prepared himself for the opportunities which the revolution afforded by studying the art of war, while his companions were spending the time in merry-making. None could have guessed that Pitt was fitting himself to be the great orator of the English House of Commons by his laborious translations of Cicero's orations into English, and re-translation from English into Latin again. The young college boy, while his college companions were spending their time in quite innocent but not especially beneficial college sports, was either lecturing in country school houses on phrenology and temperance or patiently spending hour after hour in the drudgery of elocutionary drill under a special teacher; when the fullness of time came, the great orator faced the howling mob in Manchester and Liverpool, and quieted the mob by the powers which he had cultivated in his college days.

I was at Collamore's the other day, and they showed me a wonderfully beautiful vase, made in the royal pottery in Russia, given by the czar to his married daughter, and so coming through successive owners into the hands of an American purchaser. It was beautiful in form, in color, and in exquisite decoration, yet it had been made out of simple well selected clay. And I said as I looked upon it, if an artist can make such a work of beauty out of common clay, what can not God make out of a common mortal, if the mortal will only give God a chance and will allow himself to be made?

True greatness is illustrated by the characters and careers of some of the richest and most famous men of their age who were direful failures; and of some men their contemporaries who without wealth or honor have lived great lives. Pharaoh, the emperor of the greatest empire the sun then shone upon, was a stupendous failure; Moses, leader of a herd of ignorant slaves, a magnificent success; Nero, emperor of the greatest empire the sun then shone upon, was a stupendous failure; Paul, the unknown messenger of an unknown land, cradled among a despised people, was a magnificent success; Philip II., emperor of the greatest empire the sun then shone upon, was a stupendous failure; William of Orange, dying in the maturity of his manhood by the assassin's knife, a magnificent success; George the III., emperor of the greatest empire the sun then shone upon, was a stupendous failure; George Washington, rebel, outlaw, with a price set upon his head, was a magnificent success.

This, then, is life:—achievement and character; to do and to be. This it is to live. Some of the secrets of thus living I shall try to suggest in a second paper.

End of Required Reading for March.

LOST REALITY.

BY ROSE HAWTHORNE LATHROP.

O soul of life, 'tis thee we long to hear,
Thine eyes we seek for, and thy touch we dream;
Lost from our days, thou art a spirit near,—
Life needs thine eloquence, and ways supreme;
More real than we who but a semblance wear,
We see thee not, because thou wilt not seem!

NAPLES AND POMPEII.

BY DR. THEODORE L. FLOOD.

The galleries of sculpture in the Vatican at Rome present in marble many notable men and women of the distant past; a variety of animals look at you grimly with their eyes of stone, from shelves and pedestals; but Christ is not here, and His mother is not here. And why? Because the *master painters* have monopolized this glory, and left the more ordinary characters of history for the chisel of the sculptor.

It was on the morning of April 18, 1887, that I studied this difference in the taste of the artists, though I confess to anticipating a scene on the coming day more sublime than the Vatican. Pompeii was in my plan, and toward the famous ruins my mind was ever and anon turning. Yet I could not suppress the thought as I turned away from the Vatican, that this is a great show house; a school where young artists copy pictures executed by the old masters. The institution is a sort of legacy, in the hands of the Pope, to whom all visitors pay centimes for admission; at the entrance a fee to an official guide, a tip to a door keeper, and tribute to the umbrella man. The expense is light, but it is this economical financiering of His Highness in gathering the small sums that keeps his church coffers full.

It was an afternoon journey of seven hours from the Vatican to Naples (Napoli). It was a long express train, the cars were well crowded, the people were beginning to leave their homes in the north for the more salubrious climate of southern Italy. The cars were well upholstered, and all the accommodations good. The country between Rome and Naples is a beautiful Italian landscape. The vineyards are orderly and well kept; vigorous, luxuriant grape-vines, like a wide netting stretching from willow tree to willow tree, may be seen for miles along our journey. The land is divided into large sections, the grass grows rank and is of a deep green color, but the trees are not tall or stately.

As we approach Naples signs of thrift are seen on every side; the fields are as clean as well kept gardens, some of them thickly set with trees, on which figs, lemons, and oranges hang in rich abundance. In front of us is Mount Vesuvius, rising now to the right of our train; presently we swing round a curve in the road and from a car window on the left we see from the crater a steady volume of smoke ascending. It seems to be far away to the east and in front of us, but we move on till we are directly opposite the high monster, and then we pull past it and into the station at Naples. It is a delightful summer evening, an Italian day in its glory, and the natives of leisure are basking in the evening sun.

Naples had often appeared to us in engravings and rhetorical pictures as a town of surpassing beauty and magnificence, but our first impression from the reality dispelled the illusion. This town, founded more than three hundred years before Christ was born, appears old, and one expects to see the antique in every street. The old civilization and the new civilization are here, as in Rome, engaging in a friendly struggle side by side for the mastery, but old Naples is the loser. Abandoned styles of architecture mar the scene; narrow dirty streets and an equally dirty street population do not awaken admiration, and yet this is the picture that greets the traveler.

The new portion of the city presents a charming scene. The streets, villas, hotels, all have put on a modern dress, and though Italian in language, habits, and customs, one is impressed with the intelligent appearance and strong character of the people. The city is built upon the face of a hill, which stretches back from the edge of the Bay of Naples; the rise is so abrupt that palace rises above palace as on a terraced wall. From the front windows and doors of each home the people look out over the bay in front of the town.

It was an April morning; the quiet waters stretched away till they joined the Mediterranean Sea; sail boats and row boats by the score dotted the deep blue waters. On one side of the bay is a magnificent range of mountains; to the right far in the distance is the Island of Capri; still farther to the right rising perpendicularly from the water's edge is a high wall. In years ago all people condemned to death in this province, were thrown over the wall into the deep waters below. This method was a substitute for the cross and the beheader's ax. Away to the left stands the smoking mountain as a phantom on the bosom of the sea; but, in reality, it is never to be forgotten, being an abiding figure in a picturesque scene, the delight of artists and the Mecca of travelers.

But now we go to Pompeii. Our outfit consists of a carriage and three horses hitched abreast, a driver, and a guide who talks Italian and English well, and a company of four persons, with a lunch prepared by our genial host of the Hotel Bristol. It is a fourteen mile drive. The air is cool for the season is late. Vegetation is at its full. The markets tell how the land produces vegetables of various kinds, and how this goes on the year round, because there is very little frost, some winters none; the fall of snow is light and usually melts away in a few minutes. A carriage, on such a day, is better than the cars, so we think, as we drive on, the

Bay of Naples on our right and Mount Vesuvius on our left. We pass through several small towns, Portici and Resina,—indeed, it is one continuous line of houses on either side of the drive-way from Naples to Pompeii.

Our guide is a good talker, overflowing with information. He has gathered from a hundred journeys over this highway.

The climate is favorable to outdoor life. The common people appear everywhere; they wash, comb their hair, knit, sew, make macaroni and eat it, at their front doors on the sidewalk. The vender of edibles with his donkey and cart sells to the woman in the third story. From her balcony she lets down her order in a basket with a rope; he sends up the complement; she sends down the centimes. No milk cart moves from house to house; the milkman drives his cow to the front door, milks a pint or quart for his customer, takes his money, and drives his cow to the next house; no town pump comes between the dealer and customer.

That ancient animal, the donkey, is still here, hearty and strong; a stubborn and plucky little fellow he is, a beast of all burdens. Their number is legion. They are pressed to their task by the screams and yells of natives, whipped and urged on by the snapping of the lash, till the cracking and whacking resembles the racket of fire-crackers in an American town on Independence Day.

Our horses trot, but the beggar comes, sometimes a man, sometimes a woman; they run the length of a square, by the side of the carriage, hands extended or holding up a hat, crying a mumbling cry, unintelligible to both driver and guide, and only desist from sheer exhaustion.

A villa, and they are numerous, is usually an elegant residence, with ample grounds where orange, lemon, and fig trees abound, enclosed by a high stone wall, on top of which in rich abundance the cactus and century plant grow and prosper. In America no residence but that of the sentenced criminal is walled in with mortar and stone, but in Italy the custom obtains among the gentry and the rich; it is a sort of exclusive life. Some say it is a fashion of the aristocratic classes.

The distinction between the rich and the poor is manifest in all this land. The evident poverty of the denizens of the street and the seclusion of rich proprietors, walled in, tell the story of intense feeling between the classes. In all the towns and cities of Europe we visited, this spirit dominates social and public life.

The authority of the government is respected and the people seem to be cheerful, happy, and contented. It was interesting to observe teamsters and laboring men, who, after eating their noon lunch and feeding their horses or donkeys, laid themselves down on the ground by the roadside to take a noon nap. Nobody disturbed the sleepers, mischievous boys, who often find in the day-light sleeper their opportunity for pranks, passed by and let the weary men sleep on. I put it down to the credit of public order among the Italian people that tired men may sleep undisturbed on the ground of a great thoroughfare while the crowd is passing by.

We are at the gates of Pompeii. The sun is high in the heavens, the atmosphere balmy and of an invigorating quality. And now the much coveted privilege of walking over the ruins is before us. It is an ancient town of thirty thousand inhabitants, whose buildings and streets have been buried under *twenty feet of lava* for nearly seventeen hundred years. The entrance is carefully guarded by policemen in uniform, indeed the whole town seems to be under martial law. Twenty-seven sentries are on duty in these sacred precincts. We each pay two francs to pass in;

when we find that no outside guide is admitted, we employ one at the gate at five francs an hour. We enter through the room where are on sale lava pins, souvenirs of various designs, and relics that you may take home from Pompeii.

A number of household utensils and some jewelry were found in the ruins the day before we arrived, and we were permitted to examine them. They had not been cleaned or burnished, but they were samples of what is being found frequently by the present force of workmen.

When we entered the first street I looked to the north and there was Mt. Vesuvius the old enemy of Pompeii, about four thousand feet high. A burning mountain, older than the New Testament, the smoke ascending from an unquenchable fire in a threatening column, the interior operating in majestic silence, while all the exterior on every side from the summit down to the base and reaching far into the valley below, is as quiet and serene as the cloudless sky. It is one of nature's sublimest attitudes where she blends the past and present to make a magnificent illustration of God in history.

Pompeii was a popular resort in its early history. Nature furnished its stock in trade, the river Sarno flowed by it two thousand years ago, ships came and went, and made the people rich, but an earthquake about sixty-three years after Christ's crucifixion pushed the land up and pressed the river back, leaving the town with a vantage ground which made it an important place. It has been held by different nations and many prominent people came and built homes on these streets. Cicero owned valuable lands here, Sallust lived in the town, and the Roman emperors were attracted hither by its natural beauty.

It flourished, after its first calamity, till August 24, in the year 79, when the rain of fire fell and buried in utter ruin Herculaneum, Pompeii, and all the country round. The lava of the last destruction is now used in the immediate vicinity for stone walls and foundations for houses, the charred facings resembling pieces of wood and boards that have passed through fire without being consumed. The public roads for miles in every direction are made by this lava coating. The intervening centuries have not rubbed out the marks of the fire or polished the face of the country. The observer feels that calamity stalked abroad here, that the fire fiend ran riot over this ground, that pitiless elements have done a deadly work, and civilization has not yet repaired the damage.

How the lava and ashes fell, or flowed down the mountain's side, over the towns, has been a subject for speculation through the centuries among travelers, scientists, and historians. But it was a destruction, as Bulwer says, "which came by showers of ashes and boiling water, mingled with frequent eruptions of large stones and aided by partial convulsions of the earth".

Nearly two thousand years distant from that rain of fire we come to see fifty men with picks and shovels excavating, seeking for hidden treasures in castles, private dwellings, and public buildings. The sublimity of the place and its surroundings in the face of history is not equaled at any other spot on the face of the earth. The houses and their furnishings are found as they were left by men and women who fell asleep in the fire.

The excavating has been attended by a good deal of novelty and at times excitement. When treasures are being dug up, curiosity among the people runs high. It is estimated that more than two thousand people perished in these ruins when the town was buried. Many survivors soon returned to seek for their dead, and their personal effects, but with little success.

Comparatively nothing was done to find the town, till less than a century ago.

Marshal Murat, one of Napoleon's most dashing and victorious cavalry officers, was honored by his chief in two ways: first he married Napoleon's sister, and then Napoleon placed him on the throne of Naples to rule over this province. Murat unearthed the walls of Pompeii, excavated the street of the tombs, laid bare the Forum, and opened the way into many private houses. It was left however for M. Fiorelli in later years to carry forward the work on a systematic plan.

Victor Emanuel restored Fiorelli in 1860, after he had endured privations and persecutions because he was a liberal. He was made chief superintendent at Pompeii where by his genius and enterprise he has pushed forward the work of excavating with marked success.

The Italian government appropriates sixty thousand francs a year to the enterprise, though large sums of money are realized from the gate fees to defray the expenses. It is supposed that not more than one-third of the town has been excavated, and good judges estimate that it will be one hundred years before the work is finished. In the years 1861-72, the workmen unearthed eighty-seven human skeletons, three dogs, and seven horses. I saw a man whose form was found in 1861 and preserved. He fell in the street under the terrible shower of hot lava. When the excavators came to his form, a scientist suggested that as nothing but the imprint of the man's form was there, he would bore a hole into it and inject a liquid substance into the hollow mold, which would harden and then they could recover the form of the man. It was done to perfection; there he was in a glass case, the contortions of his body, the agony of his facial expression, writhing in pain, indicating how he suffered as he was caught in the fires of lava that suddenly flowed over and around him and held him as in a vise till he died. A dog the size of a greyhound was brought out by the scientist, using the same process. He must have been a good looking fellow, plump, clean limbed, and a well shaped body, though his legs were drawn up and his head crouched down, while a look of indescribable agony marks his whole mien.

It is the most correct record of the civilization of this part of the world eighteen centuries ago. What a tale is here being told, how these people looked, how they lived, indulged in pleasures, and worked for bread, how they were governed, what they ate, how they lived and died, and how they buried their dead! Pompeii is the wonder of the ages.

Our new guide is familiar with all the buildings and every street that has been newly opened. We walked through the Forum, a quarter of a mile long and thirty feet wide, with sixty broken columns, the House of the Senate and Temple of Mercury, the bank, and the Temple of Venus with its forty-eight columns, the Temple of Jupiter, and the Pantheon with twelve rooms, the public bath, and Sallust's house, the street of the tombs, and house of Cicero—and saw on the walls of a cellar in a palace, the impression of human bodies, the faces and hands imprinted there, just as men and women were fastened by the hot lava and held to meet their awful death. The streets are paved with stone; they show the marks that the cart wheels wore; and the stone steps still remain leading from the narrow street up to the very narrow sidewalk, showing how substantial were the public drives and walks for pedestrians of this town in its palmy days; but we can not tarry to write more of this place. Bulwer and Schiller have done it well. To see fuller practical results from the excavations already made at Pompeii we turn back to Naples and visit the mu-

seum located in the heart of the town—here is a wonderful story.

The building is a commodious structure made for a museum in an old town and older country, arranged and preserved by order of the government for its present uses. Its collections are rich and varied. There are nine rooms—less would not be enough—nine rooms, filled with relics taken from the ruins of Pompeii. We went through them all.

In small cups were paints of different colors taken from a paint shop. We saw mosaics, exquisite work, a beautiful blending of colors on columns in figures of birds, fishes, animals, men, women, works of art; a room of pictures, women are requested not to enter,—if in a museum in New York, Anthony Comstock would seek to abolish it, notwithstanding its historical value, having come down through the centuries, hermetically sealed in Vesuvius lava. This room tells the same story that caused the rain of fire to fall on Sodom in ancient days. Here are loaves of bread, cereals, nuts, prunes, figs, raisins, eggs, honey, meat in a kettle, chest rope, silk nets, soles of shoes, buttons, shells, bottle of olive oil, vases, lamp stands, a bell from a public building in Pompeii, only one-third of it has been found, the other two-thirds remains buried in the ruins, all sorts of cooking utensils, beds, jewelry of gold, precious stones, finger rings and pins, besides silverware, fish hooks, musical instruments, surgical instruments, and cow bells. It is a marvelous collection, but more marvelous is the fact that these things have remained so long where their owners placed them. Besides, there is found the dead man on the street, the slave in the kitchen, the dog, the horse, the ox, and the cat. They all shared the same fate, and have lain in a common grave.

We examine with mingled curiosity and reverence the few household relics, camp utensils, and army equipage of Washington and Napoleon, as found in national museums, but they died recently, while the people of Pompeii were driven from their town eighteen hundred years ago. As one looks on these ruins there steals over his soul a sense of the awful in nature and a belief in the marvelous in history; a sight of the progress in civilization and a deepening consciousness that God's hand is seen holding earth and sky, while the elements have been at war and generations have passed away. What an object lesson this place is in history, of the habits and customs, wealth and glory of this people!

It is a pleasing coincidence that Vesuvius and Pompeii are surrounded by natural attractions, the fields and towns, the Bay of Naples and the islands of the sea are set in beautiful order now as they were at the beginning of this era.

To this shrine tourists and travelers have migrated from the days of the Cæsars, and still come, and they will continue to come.

It has been a charming place for literary people in search of facts to weave into romantic narrative. The younger Pliny's letters and Goethe's descriptions make vivid pages in the literature of Pompeii. It has not been a dominant place in politics or in art, but it does possess the most wonderful story of matter of fact in modern history. Bulwer in his "Last Days of Pompeii" adds much of fiction to the reality in his characters who represent all that was, and was never more to be; there is a weird fascination in his pen, as his characters, dead for centuries, speak for themselves and their town. It is however to the facts, as they exist to-day, the historical value of the town and its relics that the thoughtful and reverent student of the ages turns with increasing wonder and surprise.

PLANTING A TREE.

BY B. E. FERNOW.

Chief of Forestry Division, Department of Agriculture.

It is the duty of an enlightened community to plant trees.

—Decaisne.

"What is worth doing at all is worth doing well." This trite saying is often on our lips, but how many follow its precepts? While we would oftentimes be willing to do so, we as often fail because we do not know wherein the "doing well" consists. The admonition of the Laird of Dumbiedikes, "Ye may be aye stickin' in a tree, Jock, it will be growin' when ye're sleepin'", may contain an excellent incentive to tree-planting, but from the many treatises giving advice on the methods of tree-planting it would appear that the "stickin' in" is not so simple a matter. For, while the theorists are mostly settled in their minds as to how a tree should be planted, in practice we still see either ignorance or at least neglect of the commonest rules.

Yet if one understands the requirements of tree-life, there need not be any mystery about the planting and care of trees. If we would only realize that a tree is a living organism, in many respects as much so as an animal, that it will respond to good treatment and resent bad treatment, we shall feel it in our hearts to treat it with some of the care which living beings seem to demand of us.

As in the human being a good constitution can not exist without a well-conditioned digestive apparatus, so in a tree a good root-system, which provides an essential part of its food, the water, may be regarded as the most important feature of a good tree constitution. The foundation of successful tree-growth may then be said to lie in the roots. Their importance will at once be impressed on our mind, when we consider that often more than one-half the bulk of the tree consists of water, derived through the roots, and that water is the essential requisite for all functions of tree-life.

But the different parts of the root-system before us have a different value, which it is well to estimate in judging of the fitness of the tree for transplanting. The strongly developed main root—tap-root—and its stout ramifications serve to store nourishment and to convey it with the water to the stem above ground; as such conduits they are useful and like the pipes of a water-supply system should be kept in good condition. Yet we could shorten our system without injury to perfect working, and so we could remove a tap-root under certain circumstances, without ill effects to the tree. But the capacity and condition of the pumps which supply the water-works are of greater importance, and to these correspond in the root-system, the finer rootlets and root-fibrils. These are the most important parts of the root-system, for they are capable of insinuating themselves easily into every little interstice of the soil and of appropriating every little particle of water, which hygroscopically attaches to the soil particles or by capillary forces is brought to them.

These young and tender rootlets, through fine root-hairs and the thin-walled cells along their entire surface at the tips, and by the existence of cell-sap and consequent osmotic action (interchange of liquids) are capable of absorbing the surrounding moisture (not by little spongioles at the tip as used to be popularly stated). In the same manner and by excreting acid sap do these young rootlets exert a solvent action upon surrounding soil particles, unlocking the needed

mineral materials at the very points where the root-hairs are present to absorb them and supply them to the tree.

The drying-up of these rootlets and root-hairs makes them unfit to fulfil their function. It is evident then, that success in transplanting must be proportionate to the number of the rootlets and root-hairs preserved in vitality, and an abundant supply of these must be the decisive criterion in selecting a tree for transplanting.

If our pumping capacity is not sufficient to supply the demand for water, we can make it so by curtailing the consumption. Just so with some trees; if we find the proportion of top to the number of efficient rootlets too great, we can curtail the demand at the top by cutting it back. This can be done to such an extent as to remove the entire stem and to plant the root only, "setting the tree upon the stump". This method is not unfrequently practiced with those kinds, which, like the chestnut, oak, hickory, and other nut-trees, have a tendency to strike deep tap-roots with scanty development of fibrous roots along their length, and which it is difficult to transfer without injury. The stumps so cut down will send up several vigorous sprouts, and after a year's growth the most promising one is selected to grow to a tree, the others being removed.

The growth of such sprouts is very much more rapid than that of seedlings, but they cease sooner in height-growth. It may be preferable, therefore, to correct the root-system in the nursery before removing the tree, which is best done when one year old, by pruning the tap-root under ground without removing the plant, and thus inducing the formation of a more compact fibrous root-system.

It seems that the capacity of retaining vitality in these rootlets is possessed in a different degree by different kinds of trees, and this to some extent would explain why some transplant more easily than others, or rather, why some will stand abuse less well than others. Thus we hear of the difficulty of transplanting evergreens, magnolias, tulip trees, etc., while the abuse that the soft maples and box-elders and elms will stand has become almost proverbial; and we may add to those less sensitive ones the catalpa, mulberry, osage orange, black cherry, sycamore, poplars, and willow.

While we see such tough fellows succeed in spite of abuse, it does not follow that they would not do better were they more carefully handled.

It is advisable, then, that in moving trees for transplanting, after they have been carefully taken up with as many rootlets preserved as is possible, they should not be suffered to dry out, but be kept in a moist condition until placed in their new site, by covering them with wet moss, straw, hay, matting, or any other contrivance which will guard them against the influence of sun and wind. Should roots and rootlets be in a dry and shriveled condition, they may be revived sometimes by burying root and top in moist soil for several days and then severely cutting back the top (or "setting on stump") when planting. With this part of the constitution well taken care of, the rest is easily kept in condition.

Other points, upon which a good constitution and the fitness for removal rests, are a normal form and a full and

sound development of the crown, besides a consideration of the conditions in which the tree has grown in comparison with those to which it is to be transferred.

The requisites of normal growth can not in general be described but may be recognized in straight stem and in the proper proportions of height and diameter; a short and thick-set stem, or a thread-like stem, elongated at the expense of the diameter, mark disproportion.

The normal crown is characterized by vigorous, fresh green leaves, or else by a large number of (often closely-set) thick and full buds; a tolerably symmetrical spread of crown, covering one-third to one-half of the main stem is also desirable. Such a plant would indicate that it grew from good vigorous seed on a loose, rich soil, with a sufficient root-feeding area and without interference in its development.

In considering the conditions into which we propose to transfer trees we have to discriminate between those of climate and those of site. As a rule the different species of trees develop best in their natural habitat.

While then the trees which we find native to our locality are in general the best to choose for planting, it is not impossible to acclimate trees, so long as we can supply similar conditions of climate or in some way compensate for the absence of one or another factor of climate or soil upon which the tree principally depends. These factors, which in their harmonic co-operation produce the best conditions for each kind of tree-growth in its proper locality, are the temperature and humidity of the atmosphere, and also the humidity, temperature, and physical conditions of the soil, influenced to some extent by its mineral composition. Our knowledge as to the special requirements of each species in these respects is very meager indeed, and we rely mostly on imperfect data and desultory experience. There is such a fine balancing of climatic and soil influences going on that we find it difficult to determine upon what factor each kind mostly relies, to which it is indifferent, and in what direction it possesses the most adaptability, etc. Yet we infer that in general the trees of southern climates are dependent on a large amount (or long duration) of annual heat, and that those from high altitudes require a cool situation or less amount of annual heat; and the same difference of requirement may exist in those which naturally appear on southern and western, and those which inhabit northern and eastern exposures.

What ranges of temperature a tree will endure can only be found by trial, but we know that the humidity of the atmosphere greatly influences that capacity. We also infer that the trees from a moist climate make a special demand on the humidity of the atmosphere. Yet a plentiful supply of water at the root may compensate for the drier atmosphere, if the root-system and the evaporating power of the leaves can stand the strain of increased activity.

In respect to the demands which trees make on the soil, it will be well to keep in mind that all trees thrive best in a soil which permits the formation of numerous roots and rootlets and facilitates their penetration, and which ensures a constant and even supply of the ever-needed moisture.

Wood-growth, as far as it makes demands on the soil, can be said to require only a suitable moisture supply; for there is hardly a soil in the world that does not contain a sufficiency of the small amount of mineral constituents (the carbon is supplied by the atmosphere) required for wood-growth. It is then the physical conditions of the soil to which we must direct our attention and mainly to those which determine moisture supply.

Such opportune conditions are presented by a deep, well-drained, tolerably loose, loamy soil, with a subsoil, which, C-mar

while not so impenetrable as to cause stagnation, yet is compact enough to store considerable moisture for times of need.

While such soil affords the best conditions for rapid and full development of all kinds, some species have the capacity of existing and even thriving under less favorable conditions, and we hear therefore of trees which will grow on dry soils or on wet soils, on shallow soils or on stiff soils, on uplands and on lowlands; but it should never be forgotten that by this we simply express to what extent a tree is capable of adapting itself to unfavorable conditions, and not where it grows to best advantage. In planting for profit, however, it may not even be always advantageous to secure the most rapid growth; for we know, that while the quickly-grown oak furnishes the best timber, we prefer a slowly-grown pine for building purposes. Should we be required to plant a barren spot to trees we would choose from among the following: of conifers, the pitch pine (*Pinus rigida*), Jersey pine (*P. inops*), the Scotch or Austrian pine, the red cedar, and the Douglas spruce; this latter is one of the most beautiful, most accommodative, and rapid growing conifers from the West, most easily handled, and deserves to be known and planted more than it has been so far; among the broad-leaved trees the Spanish oak, black cherry, hackberry, white birch; some people might choose the ailanthus or the black locust. In stiff soils the hickory (shell-bark and bitternut), the maple (sugar and red), box-elder and basswood or linden, may have the first choice.

Where insufficient drainage is the objectionable condition, some of the following kinds may not refuse to battle successfully. The pitch pine again and the black and white spruces, in more southern districts the bald cypress, and in the north the tamarack will stand a considerable amount of overflow, as also the white cedar. Of broad-leaved trees a wet soil is borne by the water oak, the bitternut hickory, the beautiful sweet gum south of New York; the ashes are all more or less dependent on a large amount of soil humidity and will grow—at least the black ash—on badly drained soil; the swamp or red maple, as its name implies, is not unfriendly to an abundance of water; the sycamore, black birch, and perhaps the basswood will endure it, and the willows, balm-of-Gilead and other poplars, though by far preferring a well-drained, deep, and uniformly moist soil, will accommodate themselves to wet ground. One of the best perhaps is the European alder, which is quite at home in the swamp with a changing water level. The elm too is not unadaptive, and where the climate permits, the magnolias will grow well on peaty, not too wet, soil.

For sea-coast planting are recommended besides, the pitch pine, Douglas spruce, red cedar, arbor vitae, yew, the elder, and white birch, also the maples (especially the Norway), and some oaks.

As likely to withstand the smoke of cities, are recommended the horse-chestnut, catalpa, the cleanly sycamore with its smooth leaves and ever-peeling bark, the quick-growing but otherwise objectionable ailanthus, and in some climates the paulownia from Japan, the black locust and honey locust, also the elm, linden, poplars, and willows.

While then, Nature has kindly gifted these trees with special powers of adaptation, we should provide as far as possible when transplanting, the best opportunity for successful growth. This is done in the preparation of the soil for the reception of the tree. Knowing that a loose soil permits the rains and snows to penetrate, and thus facilitates the supply of this most necessary agent of tree-growth, facilitating also the development and penetration of the rootlets, we must in the first place provide as much

loose soil around the planted tree as possible. By making the holes twice as large in every direction as the size of the root system would seem to require—although we do not place the tree any deeper than it stood before—we increase the favorable conditions for its development. By digging the holes from half a year to a year before the trees are to be planted and exposing the soil dug out to the influence of air and frost, by which it is comminuted and made mellow, by bringing into a site with a stiff soil, a few wheelbarrowfuls of sand, or adding some clay to a poor sandy soil, we can improve naturally poor soils and make them better adapted to meet the demands of our tree for moisture.

Having thus provided a fitting receptacle for the subject of our care, the manner of placing it in the hole is to be considered. It seems indicated, that the roots should be spread out in natural position—so as to give them as much soil area as possible to feed upon—yet I have seen pine seedlings which had unusually long roots, planted with the roots tied in a knot and succeeding as well as those placed naturally. Much more essential is it that the fine mellow earth should closely surround each little rootlet, to give it opportunity of supplying itself with the water which the particles of soil may by capillary force carry to it. Only fine mellow soil, not too moist, and free from stones, will permit such close adjustment to the rootlets; with this every crevice must be filled either by the aid of the hand or by giving a gentle up and down motion of the tree while filling-in, and finally packing it tightly. In transplanting evergreens this last is of greatest importance, to allow an easy appropriation of the hygroscopic waters by the rootlets.

The practice of using water while planting can hardly be said to be a good one, unless very carefully applied with a "rose" after the soil has been well filled in and packed around the fibrous roots. Especially with a soil which has a tendency to clog, there is great danger of an uneven distribution and settling with consequent empty spaces between the roots. More trees are probably killed by too much water in transplanting, than by too little.

Yet to preserve the natural moisture of the soil and to prevent its rapid evaporation the application of a mulch of any waste material, such as hay, straw, shavings, saw-dust, fine brush, peat, or even stones simply, is of excellent service and should never be forgotten, at least for the first year and in times of drought. The same consideration which calls for stirring the ground of corn and potato crops—namely to interrupt evaporation from the depths, by capillary action, which a compacted soil assists—dictates a similar practice around trees, in times of drought at least, and in the spring of every year.

In very exposed positions, especially in the trying climate of the Western plains, protection against the scalding southwest sun may be called for; it must however not be forgot-

ten that a young tree, like a boy, may be made unfit to live by caring for him too tenderly. Choosing, therefore, plant material which has grown up under proper training by the nurseryman to withstand the weather, is altogether the better plan.

Transplanting is, however, always a forcible operation, necessitating, if only a small damage to the root-system, at least a change of conditions and a consequent interruption of activity. Any extra care, therefore, after the operation, until the tree has taken full possession of its new domain, will be well repaid.

The damage to the root-system requires special attention, by the use of the knife at the root as well as at the top. In this, our simile of the water-supply works may again aid us for a suggestive illustration of the principles involved. In taking up the tree its pumping capacity has been impaired; it would be folly to reduce this any further; no cutting at the roots, except with a clean sharp cut, to remove bruised parts of the supply-pipes. The tap-root and the long naked side roots without fibers, are the least important parts of the supply-system; that the tap-root may be removed entirely, if a sufficiency of fibrous roots remain, has been stated before. But the consumption at the top may be curtailed to any degree that is desirable and should be proportioned at least to the capacity of the root-system.

How much and what to trim at the top is a matter of judgment and can not well be described here; the little book on the subject by Des Cars (Boston: A. Williams & Co.) should be in the hands of every one who does his own pruning.

This much should be kept in mind: severe pruning is less dangerous than too little; a clear cut as near as possible to the stem or remaining branch, will facilitate the healing of wounds, and in the further development of the crown, timely removal of a misplaced bud (with the fingers) is an easier and less forcible way of correcting bad shape than later pruning. Excepting for the effect in the appearance of the tree, its symmetry, there seems hardly any danger for physiological reasons, in severe pruning, at least of deciduous-leaved trees, unless that the stem deprived of a sheltering crown may suffer from the sun.

The right time for transplanting has formed a subject for frequent discussion, and the advantages of the different seasons have often been brought forward; all arguments considered, the conclusion must be drawn, that while with proper care transplanting may be done all the year round, it is more safely and easily done in the fall or spring, mainly on account of the assurance of more favorable weather during these seasons (less subject to dry weather). And all advantages and disadvantages balanced, we should decide for spring, before the buds open (February to April and in the mountains later) as the best time everywhere and for all kinds of trees.

FAITH.

BY ADA IDDINGS GALE.

The humblest rill that slips its banks between,
Though but a finger's width its breadth may be,
Doth find at last the fair expanse, the sheen,
The unutterable glory of the sea.

And may not I, passing through sinuous ways,
The end of fear and troublous doubtings see—
And in a moment of supreme amaze
Find, and be merged, Almighty God, in Thee?

THE AURORA AND ICEBERGS OF THE POLAR REGION.

BY LIEUT. FREDERICK SCHWATKA.

The love of conquest and adventure among the Vikings first led their half piratical hosts into the frozen seas, then commerce claimed every page of hyperborean history for a long time in the fruitless searches for a north-east and a north west passage, and the opening of the whale fisheries, until finally science secured a chapter here and there among the records that go to make up this great boreal book.

In no domain of nature is the science so popular and interesting as in the lone northland, where the quivering, throbbing flame of the Arctic aurora throws its lances of light athwart massive mountains of ice that sail through seas of seeming fire and grinding floes of snowy whiteness, while on the land are glaciers thousands of feet in depth and miles across with a flow so silent and so slow as though Nature had intended it for the hour-glass to record the eons of the earth. Here then were marvels and mysteries enough hung high in the sky and sunk in the sea to engage the closest attention of the most devout devotee of scientific research; and into these northern laboratories we will delve for a few minutes to get at some curious and interesting facts that are there evolved.

For years people have gazed at the beautiful arch of the northern lights and wondered what they were. It was a fit subject in which the imagination could run riot over the dazzling displays, until to-day the most that could be said about them would be to correct errors that are yet believed, rather than give an explanation of the little that is truly known as to their physical properties. Observers of the more reliable kind have said that they not only saw the aurora but that they could hear the rustling of its rays, and even went so far as to say that they could detect a peculiar odor unmistakably due to its presence. Aristotle speaks of it in his works, while Cicero and Pliny add to the testimony of the former as to its ancient displays in classic Greece. Seneca gives the most exact of the old accounts, and describes a peculiarity of it that has never been seen in modern Greece, but that was confirmed by a display witnessed in Copenhagen in 1709.

The ancient Norsemen and the Norwegian peasantry to-day believe that they see in the northern lights "the Valkyries traversing the air on their somber coursers". This belief is to be found among several passages of the Edda.

From this Norwegian peasantry also comes a curious physical explanation of this polar phenomenon; an inhabitant once telling a scientist that his people believed it to be caused by the icy particles in the air absorbing the rays of the sun during the daytime, as a sponge would absorb water or the earth a fall of rain, and that during the night these are emitted as a faint light, as the ground would give out the rain in a sort of vapor.

In the same relation I might speak of a curious physical explanation, given by the Eskimo of my acquaintance, regarding the northern lights. Some of their leading men told me that they believed it was caused by the wind blowing on the clouds and light vapor in the air; and it is a singular thing, which might be interpreted by some as confirming this Eskimo theory, that after an unusual display of the northern lights, even though they begin in the clearest cloudless skies, a large amount of light, fleecy clouds

are developed and overspread the vault above. This has been noticed too often in such exhibitions to be merely one of coincidence.

I might interpolate here that I never knew the Eskimo to have any superstitious reason for a physical phenomenon, or at least I can not now recall one. They had no Valkyries riding horses of light across the skies for the northern lights, nor the dancing of displeased spirits as some of the Indians say, and so on through all the visible displays of nature. Some of their ideas or explanations of course were as absurd as if they had been loaded with superstition, but still they made rough attempts to get at the facts; while some again, though far from the truth, were really ingenious in the limited light from which they had to judge, and one of these I will give.

The Eskimos of King William's Land, a large island in the Arctic Ocean, which I once visited, have an occasional tree trunk, log, or branch of tree thrown upon their shores by the ocean currents that bring them from the Mackenzie River probably, or perhaps from some of the great rivers of the Eastern Continent, the Obi, Petchora, Lena, etc. They are quick to use them for walrus spears, sledge-runners, and other necessary utensils, but have no more idea where they come from than would the Hottentots if they saw a polar bear in their camp, know about its origin. But while the Africans would care less to ascertain the animal's origin than they would its destination, the Arctic inhabitants on the contrary have evolved a theory as to the timber, with the limited amount of knowledge they have on hand, and which does not embrace any idea, directly or indirectly, of standing timber growing on the land and being washed down the rivers. They think that it grows on the bottom of the seas and when it gets so high that its tops are frozen into the winter's ice, that ice, in breaking up in the summer, tears up the trees by the roots and carries them to the shore where they are deposited and found by them. The tall trees, of course, grow in the deeper parts of the sea, while the smaller ones come from the shallow places nearer the shore. The fragile tops being broken off in many of them by the grinding floes on their long journey from the distant rivers, are supposed by the Eskimo to show that the top above in the ice and the roots below in the bottom of the sea have had a struggle for the supremacy in which the roots had one victory before they succumbed next year to the ice. When I told them where the trees came from they gave up their pet theory with as much reluctance and disgust as theorists in general.

But to return to the northern lights; and that adjective "northern" suggests that there are also southern lights as well at the other end of the globe—if I may be allowed to say that a globe has any end, beyond its imaginary axis. The *aurora borealis* of which we hear so much, there becomes the *aurora australis*; and the only name I know which covers both cases is that given by the French, *les aurores polaires* (the polar auroræ) the equivalent of which we seldom hear in our own tongue. Antonio de Ulloa, when off Cape Horn, in 1745, saw the *aurora australis* several times and was the first to announce its presence in Europe, although it is claimed that there are auroral observations taken in Chili as far back as as 1640.

To give all the varied forms of the polar aurora would be to monopolize THE CHAUTAUQUAN for two or three years. The brilliant, burning arch with upward and radiating streamers is the most common form we see in the United States, but as the polar regions are approached from here this breaks into a thousand fantastic varieties. The crown of this beautiful arch is always in the direction of the magnetic pole, or where the dip needle stands vertical, and the horizontal needle of the compass refuses to act. This would indicate some close relation between magnetic force and the auroral displays, which is further corroborated by the noticeable disturbance of the magnetic needle during unusual displays, as well as in many other ways.

One would naturally suppose that as the north magnetic pole was approached, the exhibitions of the aurora borealis would be on a grander scale than any we have ever seen, and this is partially true. As that pole is neared from the United States we would have brighter and more frequent auroral displays, but long before that point is attained, the maximum of brightness and frequency will be reached, and from there to the magnetic pole they both decrease. It was my fortune to be near this spot in the early winter of 1879, and I recall no displays amounting to more than a faint hazy light in the heavens at any time. I have often seen much finer exhibitions here at home. This north magnetic pole is, roughly, about on the intersection of the seventieth parallel and the one hundredth meridian west of Greenwich, two co-ordinates that are nearly always represented on even maps of the largest scale, and therefore easily found. This is some twelve hundred to fourteen hundred miles from the true or geographical pole, and by that same distance the center of the auroral displays is tilted over on this side of the earth's axis. As a consequence we are that much better favored in seeing the northern lights than people on the opposite side of the earth, and while in America displays are seen as far south as Cuba and Yucatan, it is said that they have never yet been witnessed in Peking, the capital of China, within historic times, although the carefulness of the Chinese in such observations and the great antiquity of their records are such as to show that for centuries it must have been practically absent from there; and yet Peking and New York City are only some fifty miles apart in latitude. Thus nature is more liberal in her beautiful displays of the aurora with our own country than any other of equal population in the world. But it is claimed by some that this pole revolves around the other every fifteen to twenty centuries, and, if that is so, the time will come, far in the future, when the Chinese will have the most beautiful displays and we shall be correspondingly in the dark.

I could talk an hour about this beautiful and mysterious display of a northern nature, its history, forms, physical characters, about its supposed noise and odor, its extension, position and frequency, its relations to meteorological phenomena, its various periods, its height above the earth's surface, and the many theories that exist to account for it, but I am afraid I have already devoted too much space to this interesting polar phenomenon, in a region that is full of a thousand interesting expressions of nature.

When the sailors first entered Arctic waters, centuries ago, the most appalling sight they encountered of the many, were the mighty mountains of ice floating around in the sea, rearing their crystal crowns many times higher than their tallest masts; and to this day the sailors of those seas, and even those on the Atlantic routes to Europe, have occasion to dread these hyperborean hulks that display no light at night nor make any signal to show their presence in a fog nor will turn to right or left for

any thing, when they have once selected their course.

The sailors of olden times reported them to be two and three miles high at times, which of course was rather the height of their imagination, as it is not fair to infer that these monsters, huge enough now, could have dwindled from such gigantic proportions to two hundred or three hundred feet at the highest. The highest I believe I have ever seen noted, where the iceberg was actually measured (by means of angles and base-lines so familiar to students of trigonometry), was three hundred fifteen feet, by Dr. Hayes, I believe. It was estimated that this crystal colossus was submerged about a half a mile. The ratio above water to that underneath is given by different observers as one to eight, one to seven, and one to six. About one to seven is sufficiently accurate to remember, but strictly refers to bulk or cubic contents, and not necessarily to height or linear dimensions.

It is easy to see that the same mass above water can have a dozen or more different forms and each a different height, while the depth of the mass below remains constant. Still, when one knows the height of an iceberg, six or seven times that for the depth is not a bad guess, but it should be borne in mind that it is only a rough approximation at the best. It is doubly "rough" if one guesses at the height of the mountain of ice, for nothing is apparently more deceptive. We have seen how "ye ancient mariner" computed them, and there are instances of recent date almost equally absurd in the light of our better knowledge.

The captain of an Atlantic steamer reported to a New York daily that he had come near losing his ship in collision with an iceberg during a heavy fog. He estimated it to be fully an hundred feet high. As the boat slowed up to avoid the impact, the captain, thinking the berg was aground, cast his sounding line and found twenty fathoms of water. Here then was an iceberg defying all the laws of hydrostatic equilibrium, with one hundred feet above water and only one hundred twenty feet below. The captain's story was probably drawn on a scale of three inches to the foot. But an eminent Arctic explorer, Payer, says there is a deception beyond merely the imagination, as he had in many years Alpine service practiced at estimating heights by the eye until he had acquired corresponding proficiency therein, but his iceberg estimations compared with actual measurements were so faulty that he ascribed it to the peculiar misty clouds which usually hang about the peaks of these icy mountains and tend to give them a delusive height in excess of the real.

There is one fortunate peculiarity about these Titans that serves to decrease their danger partially. On the darkest night they can be seen a great distance, much farther than a white sail of a ship or even a snow-covered landscape. It is some peculiar sheen of their icy sides that has this power of penetrating darkness and fog greater than any other equally white substance.

Once when nearing Davis' Strait, sailing through a night of sable darkness, our ship was suddenly brought to a stop, when the mate pointed out the faintest possible piece of white on the inky horizon, which he said was an iceberg a half a mile away, and which next morning proved to be true. He said that a clipper-ship under full sail could have passed between us and the berg and her white canvas would not have shown in the intense darkness. The reason we stopped until daylight was not on account of the iceberg itself which we could have "rounded" had it been alone, but every huge berg so far south has its family around it, or pieces that have broken off in disintegration, and these can not be seen so well though equally dangerous,

and may extend for miles on either side of the parent berg.

This constant falling away of parts of the ice-mountain soon disturbs its equilibrium and it capsizes or turns over. The tidal waves from these disturbances are often so great as to threaten to upset a ship if caught at a disadvantage. I was once on an ocean vessel anchored in a little inlet at the head of which was a glacier from whose front icebergs were dropping every now and then, and although we were fully half a mile away, and the glacier was a very small one, yet, at times, the great vessel would rock so much from the waves the falling ice would make that those of a delicate stomach did not feel very well despite the wonders that nature was displaying to distract their attention. Sir John Franklin said that he has known a ship's pinnacle to be thrown almost an hundred feet on the shore and be nearly wrecked by a tidal wave from a falling iceberg coming from a Spitzbergen glacier about a mile away. Funny, enough, it was supposed the iceberg was started by the concussion of firing a musket in the hands of one of the party.

But the grandest sight of all is to see a monstrous iceberg setting its face in the teeth of a gale and against a current loaded with ice-packs and ice-floes, and marching steadily and triumphantly against both, splitting the hurricane in whirling clouds of drifting snow and crushing the ice-floes as a foot would crush egg-shells, but with a deafening noise like a thousand thunderbolts. The monarch reaching hundreds of feet into the sea is obeying the mandates of a deep current, the ice-packs being carried on a superficial one, while the most terrible gale can have but the slightest effect in determining the direction of such a Titan in comparison with a mighty under-current of old ocean's make.

But there are many wonderful things in the snow-white zone besides auroral lights and mountains of ice, though few of them are so deeply interesting. Here are vast fields of ice beyond the comprehension of man to grasp their size. We hear of men standing in awe at sight of the largest gla-

ciers in the Alps, much less than a score of miles in length and a few hundred feet in thickness, but here are areas of ice greater than the United States east of the Mississippi, and in places probably thousands of feet in depth. Such is the great *mer de glace* of Greenland. Every foot of ice represents many, many feet of snow that must have fallen to have formed it, and it fairly staggers the mind even to think of how long this great mass must have been in accumulating. The whaler or explorer who stops his vessel by an iceberg fragment to secure it for fresh water may hold in his hand the remnant of a snow-storm that fell before Damascus was founded, or even before man had learned to record his doings as effectually as this snow-flake had done.

Here, too, the summer sun may never set and we see it at midnight as well as at noon, while in the depths of the cold winter not even noon sees the welcome beams of the lost luminary.

Here too, as well as in the snows of Alpine heights, are to be seen great blotches of bright red snow which the microscope, in the hands of the scientist, has revealed to be a most interesting form of plant life that can live only in such places as banks of snow, and that ceases to exist when the snow melts.

Here, in the terrible winter, the temperature sinks so low that man can hardly conceive of its terrible blasting, biting effects. Here the curious experimentalist can take the liquid mercury with which we see the lowest temperatures recorded in the thermometer, and molding it like bullets can fire these through thick boards, so firmly are they frozen by intense cold.

It is plainly impossible, in so short a space, to give all the popular scientific facts that cling about the frigid zone, or even of the few I know, which are but a drop in the bucket to the sum total of the knowledge of that interesting field; but if I have made the few I have selected interesting to the many readers of *THE CHAUTAUQUAN*, I shall feel that my article is a success.

THE SWISS IN AMERICA.

BY CHARLES BARNARD.

It is said that when the stranger from the West visits Boston, he is pretty sure to be offered one peculiar and rather solemn entertainment to enliven his visit. The Boston friends will take him in their carriage or their horse car to Cambridge and Mount Auburn. There are many fine monuments in this ancient city of the dead, mementos of departed statesmen, preachers, soldiers, expressmen, and other worthy persons. The stranger may stand in mingled wonder and surprise before the bronze picture representing the first common carrier delivering a package c. o. d. to a worthy Boston householder, but if he be wise he will look about for a single rough uncut stone among the marbles and bronzes, a monument that, while it says so little, means so much in the intellectual history of this country. The stone is only a boulder from the drift of a glacier, yet, it explains, in part, the Boston instinct, unselfish, and wise in its way, to show the stranger within the gates the last resting place of Boston's honored dead. It is well to visit the grave of a man who in dying only asked that his monument should say of him that he was "a teacher".

There are boulders in all the fields about Mount Auburn, erratic blocks brought there by glaciers in that old ice age of which this teacher so often spoke to us. Why not one

of these for a monument? His friends knew better and sent to Switzerland and from the glacier of the Aar brought this stone to mark the grave of a Swiss emigrant.

One of the illustrated papers recently published a cartoon representing a group of emigrants on the deck of a steamer. The vessel is entering port and is just passing the "Liberty", and the steerage passengers in various picturesque costumes are gazing in wonder at the great bronze woman who, with uplifted torch seems to light them into the doorway of their new home. Irish, German, Swedish, Russian, English, and Italian features are plainly marked among them. These nationalities make up the larger part of the people who seek our shores and, naturally enough, the artist selected these types for his picture. Little Switzerland with its less than three million inhabitants sends comparatively few, and its peculiar costumes were not represented in the picture, unless a German or perhaps a Frenchman or an Italian stood for the Swiss.

Some one once said of Switzerland that "like a poor girl her only fortune was her face". Her mountains are indeed the pleasure grounds of Europe, and the idle tourist, seeing nothing but hotels, thinks hotel-keeping the only trade. Yet, these do not make a nation, and we must look deeper

to understand the Swiss. It is said that the character of a young man in a strange place is a pretty fair index to the character of his home and mother. In like manner, the character of a mother-land may be a guide to her children in another land.

In the first place, Switzerland is very small, and yet it has three distinct national characters. There is a French Switzerland, a German, and even an Italian Switzerland. Her people are divided into the two great divisions of the Christian church, and use among them the German, French, and Italian languages. The larger part of the population are land holders and, while it is a very rough and mountainous country, agriculture is a leading industry. Food products, milk and cheese, and a vast quantity of vegetables are produced, much being for export and the rest consumed by the great floating population staying at the hotels. Silks, watches, wooden manufactures, jewelries, fabrics, etc., are carried on as extensively as they can be in a country whose territory is so largely composed of mountains, forests, and lakes.

Historically, Switzerland is an evolution from forest tribes fighting almost continually for liberty, into a confederated republic of small states differing in language, yet united in freedom. Certain learned persons have said that mountains are belittling, that men are dwarfed by snowy peaks that make a wall about them. In a sense this may be true. The people of Switzerland would seem to prove it wrong, for they are certainly industrious, independent, and, as a people, well educated. The proportion of paupers is very small; the proportion of land owners is large.

It is from this mountain land, this little republic existing practically by sufferance in the middle of Europe that the Swiss emigrant has come to make his home among us. He does not land a pauper on our shores, neither must he stop to learn a trade. He comes with a fair public school education, a desire to make a good home here, and to make money. It does not seem to matter what his particular trade, he means to work, to save, and to find a home. As far as can be learned he succeeds as well, if not better, than the average emigrant of other nationalities. The universal hotels in Switzerland have made a nation of the best cooks, waiters, house-maids, restaurant keepers, and *chefs* to be found in the world. Every club house in our great cities tries to have Italian Swiss cooks and waiters. Ladies in New York wanting maids who can speak good French and also trained in the care of children seek French Swiss maids.

Just across the little bay where this is written is a beautiful lawn with gardens, splendid stables, and all the costly fixtures of a grand sea-side mansion. The house itself is a vast *chateau* of splendid proportions and enormous cost. It is one of the finest of this town of sea-side mansions and it is the home of the children of a Swiss emigrant.

You may look about in New York, along Maiden Lane and among the banks and find many a familiar name, noted for wealth, business enterprise, and integrity, and trace every name back to its native canton among the Alps. In agriculture, and particularly in grape growing and wine making, the Swiss emigrant has been of great benefit to this country by bringing industry, training, and education to our often shallow and inefficient methods of culture.

These are dry and homely records to make of any people, yet it is true that the Swiss in this country are exceptionally valuable as emigrants. What we need is a willingness to work and the ability to work well. We want citizens, whether they be cheese experts, vineyardists, or bankers; and if the men and women who bring talents and industry to this country succeed, we are glad of it, both for their

sakes and our own. If they grow rich enough to own summer palaces on the Sound, they certainly help pay the taxes and improve the value of real estate.

One of the peculiar features of the cultivated portions of Switzerland is the long, narrow plots into which the land is divided. The crops are arranged on these ribbon like beds, and the view of a fertile valley from one of the mountain tops suggests some great carpet laid out in "lengths" like carpets in a show room. The spaces between the cultivated strips are very small, barely room to pass afoot and with only a cart path at intervals. Then, too, the culture is carried to the very edge of the rock or the water, and the high pastures dispute with the snow to make room for a few more cattle.

Wild land in our sense there is none, for even the forests are cultivated and are practically lumber farms. This minute division of the land springs in part from the very fact already mentioned that the Swiss, as a people, are largely land owners. On the death of a farmer his land is divided among the sons. In time this has resulted in a minute subdivision of the land, and to this fact we owe the arrival on our shores of so many excellent Swiss farmers. Swiss families are generous. A man takes pride in his olive branches, but when the branches ask for a share of the farm there is trouble. A farm consisting of a few ribbons of land and a house in the village can not be divided again and support all the boys. The result is the boys are in Ohio, Illinois, or California. Recognizing often from their youth that both boys and girls must emigrate, the matter is carefully considered. It is no rash venturing out to seek a fortune. The intending emigrant is educated; he considers well where he is going, and often knows more about the advantages offered by our different states than do we who were born here. He starts with a trade and always with either some money or a good connection, and he knows that even if he does not succeed at first, the Swiss government looks after his interest from the start, and Swiss benevolent societies here see that he is cared for and protected from swindlers and unjust employers.

As early as 1845 the Swiss government began to look after its people, who, finding the home farm too small, sought new homes in the West. In 1852 there was a convention of delegates from eighteen of the cantons held at Berne to consider the best way to aid Swiss emigrants, and since that time there has been a careful oversight of the whole matter. It was not to see that none escaped, but to see that those who felt they must go, went in safety and found new homes without loss or delay. In this country the Swiss have made the same honorable record as the Jews in caring for their own poor and, as an instance, it may be noticed that the Swiss Society in New York in 1855 assisted over three thousand emigrants who needed help. Since that time the various societies have continued in well-doing, not only in New York, but in many other places.

Swiss emigration appears to be highly sensitive. If times are bad here, it slacks up at once. If the depression extends also to Switzerland, it stops almost completely, the Swiss government wisely keeping its people at home where, at least, they can be cared for by friends. When business improves here the stream swells again and the family group under the shadow of the Jungfrau scatters over the prairies. The first noticeable Swiss emigration was in 1816-17. The second great rush or influx came in 1847, and from that time onward it has advanced or receded from year to year, the greatest number arriving being 18,000 in 1854. The smallest number was in 1856 when only 2,357 came. During the Civil War it almost ceased, but rose again immediately after the

War closed. From 1868 to 1873, 20,282 Swiss emigrants arrived or about twenty-two persons in every thousand of the entire population of Switzerland at that time. In 1880, 11,203 came, in 1886, 11,769, and since it has been comparatively steady.

There appears to have been a few adventurous Swiss among all the early colonies, except in Boston Bay. There were a few among the Spanish in Florida, among the French in Louisiana, and among the Dutch at New Amsterdam, though it was not till the early part of this century that the emigration became large enough to be noticed by either our own or the Swiss government. The first Swiss colony appears to have established itself in the eighteenth century in South Carolina under General Perry, and Swiss names are still to be found in Perrysburg in that state. New Berne in North Carolina was also originally a Swiss colony, though now like Perrysburg, the Swiss families are lost in the native population.

The Switzer comes from a republic to a republic. He comes to stay and to find a home, and as a result, there are very few Swiss groups or colonies. Switzer in Ohio, started in 1820, was the first colony in which the Swiss dialect still survives, though the children all speak English and are precisely like other good Ohio children. In point of fact, the Swiss do not seem to cling to their own language; meaning to become Americans they adopt the president's English quickly. Among the distinctly Swiss towns, Highland in Illinois is perhaps the largest and has a Swiss for a mayor and a population of three thousand. Tell City in Indiana, Bernstadt in Kentucky, and Helvetia in West Virginia, are among the chief of these Swiss centers of population.

The fact that the Swiss speak three languages has led to many errors in the United States census. The last reports give only 88,621 Swiss in the country, but this is believed to be largely under the real number. The distribution is quite even through the Northern and Middle States. California is credited with 5,308; Illinois, 8,881; New York, 10,721; Ohio, 11,989; Wisconsin, 6,282; Missouri, 6,084; Pennsylvania, 7,575. There were only 27 in New Hampshire; 604 in Massachusetts; and very few in any of the Southern States. These figures are, however, thought to be very incorrect. The Swiss, as recorded by counties in the Western States, have scattered very widely, showing that the great majority of the emigrants occupy farms of their own.

Swiss names are to be found in the records of our state and national legislatures and there have been Swiss in many of our local governments, still, as a nationality they are not, like the Irish, a place-seeking people. Of the two foreign born citizens who have been secretaries under our presidents, one is Gallatin, who emigrated in 1795, and was Secretary of the Treasury under Jefferson. In the Coast Survey the Swiss name of Hassler helped to make that great scientific branch of our government famous. In the War two Swiss names, Nageeli in the Federal army and Zollicoffer among the Confederates were well known. Wurtz of Andersonville prison is one of the few Swiss names we wish to forget in our history. In education we owe much to Arnold Henry Guizot, born in Neuchâtel in 1807, and who was professor of geology and geography at Princeton from 1855 till his death in 1884. His influence and his books and teaching were of great credit to his country and of very great value to us. There are other Swiss names of noted scholars, men of business, bankers, and merchants, and to this day New York City is proud of the honorable Swiss names among her merchants and financiers. There

is ever one Swiss name held in peculiar reverence in well-to-do New York, and the city will long be proud of its Delmonico, both for the famous restaurant and the man who founded this home of aristocratic delights.

There was, many years ago, in one of our Eastern cities a meeting of people interested in natural science. They had been invited to inspect a number of geological specimens and drawings of fossil remains and foot-prints. The work was greatly admired and much praise was bestowed on the learned professor who had made the collection. Among the company was a young man, a stranger, in fact only an emigrant from Switzerland. After many of those present had expressed their opinion of the collection, some one asked the young Swiss what he thought of the professor's work. He hesitated somewhat and then in imperfect English said that while the professor had showed great industry, the collection had very little value, "because it is descriptive and not comparative".

This simple remark struck the key-note of modern scientific thought in this country. Before this emigrant from Canton Fribourg came we had been content to collect, to enumerate, and record. Now our study of nature was to rise to the higher plane of comparison and deduction. It was not enough to record the names of fossils or even the names of living plants and animals. We must compare and classify; compare to learn, and classify that our knowledge be exact.

The landing of a ship-load of emigrants in New York is not a matter of very great importance. They are quickly swallowed up in our vast territory. Even the coming of a million peasants is not such a tremendously vital affair. Texas alone would take them all and not feel it. Quantity does not count for much. Perhaps we are just now learning that too many emigrants of a certain sort are a serious injury to the country. One man who comes to be one of us, who seeks our country because he wants a larger field of usefulness, one man who can inspire to learning is worth more than many millions of ignorant peasants whose only aim seems to be to live apart as aliens in our common home.

Switzerland may not have sent us soldiers in time of need. We had no Lafayette from her mountains. We had a better—a teacher. The Swiss in this country may be a comparatively feeble folk in point of numbers, yet one man who comes among us to inspire successive generations with a love of research and study may raise them to the first place among the nations that have helped form our nationality.

Well is it that the Boston man takes the Westerner to Mount Auburn, but the spot to see there is the grave of this one great Swiss emigrant, the one man who more than all others helped us, because he was an inspiration, because his life and work will live for generations after him, a light along the path of learning. There have been many from the Alpland, good men and true, citizens now of the republic, yet it may not be amiss to say that in Louis Agassiz we have the Swiss of America.

The writer in collecting the facts concerning our Swiss American citizens is greatly indebted to Mr. John Freiderich, editor of the Swiss American Journal, the *Amerikanische Schweizer Zeitung* of New York. On this paper the American flag and the Swiss cross are united. The Swiss cross now flies on every battle field, yet it stands for help and charity and not for war. So, beside our flag, if it should ever wave again in war, will be the Swiss cross on every ambulance and hospital. We mean no war to any and the Swiss cross stands, like our flag, everywhere for peace.

THE LEARNED WOMEN OF BOLOGNA.

BY MARY A. LIVERMORE.

Bologna is invested with the charm of antiquity, for it figured in the Punic War, two centuries before Christ, espousing the cause of Hannibal against Scipio. Charlemagne constituted it a "free town" in the ninth century, when it took *Libertas* as its motto, which it still retains, stamping it on its coin. We knew it as one of the great art centers of Europe, whose Pinacoteca contains Raphael's "Saint Cecilia," and Guido's "Madonna della Pietà," and in the hall of whose beautiful library, Rossini gave his first rendering of the famous *Stabat Mater*, while Donizetti led the orchestra and chorus.

We were told that its Campo Santo was the most beautiful cemetery of Europe, and held the ashes of two hundred fifty thousand people—that it boasted the architectural folly of unsightly leaning towers of coarse brick and mortar—and that street arcades colonnaded the whole city, giving a certain dignity to its domestic architecture, although, as we afterward found, at the expense of gloom to interiors. We had learned, long before, that Bologna was the first city in the world to found schools of jurisprudence, and to teach civil law—that here, Galvani first illustrated the mysteries of electricity and measured its current—that here, the human body was first dissected, and its anatomy taught, and later, the circulation of the blood.

But while all this greatly interested us, Bologna was invested with a more subtle charm to our small company of American travelers. It was peculiarly favorable to the intellectual development of women, and not only bestowed on them the degree of doctor when they deserved it, investing them with the cap and gown which were its badge, but gave them professorial positions, and maintained a long line of eminent women professors in many departments of learning. "To this day," says Madame Villari, writing from Italy, "there is no law to prevent women from graduating at Italian universities, or presenting themselves as candidates for professorships."

The date of the foundation of the University of Bologna is uncertain. Documents held in its archives indicate that it was founded by Theodosius II., A. D. 425, and was restored by Charlemagne in the latter part of the eighth or the beginning of the ninth century. It took on great glory in the twelfth century, when Irnerius was called to the professor's chair by the woman friend of Gregory VII., the noble-minded Countess Matilda. The fame of his erudition, and the splendor of his eloquence attracted the attention of all learned Europe, and crowds of students flocked to hear the great jurisconsult and to learn of him. This was about 1116, and by the year 1250, ten thousand students were attending the schools of the University, devoting themselves to philosophy, jurisprudence, and medicine. A diploma from Bologna became at once "a passport to office throughout Christendom". As a matter of course, libraries and literary institutions were the outcome of this educational work, and women were quickened to new life in this studious and literary atmosphere.

Irnerius reformed the whole law code of Europe, and worked with mighty diligence to establish a law-school that would continue his methods after his death. He marked out the course to be pursued by his pupils and successors, invented the degree of bachelor and doctor, designed the

cap and gown that were their insignia, and allowed no distinction of sex in his scheme. "If women had the pluck, the power of work in them, and the desire to become jurisconsults, the great law reformer saw no reason why they should not. They must go through the same training as men, six years for canon law, eight for civil law. They must submit to the two necessary tests, the public and the private examinations."

"The public examination took place in the cathedral, before the dignitaries, the college of doctors, the students, the ecclesiastics, and the principal inhabitants of Bologna. The aspirant for the degree, before this notable assembly, was called upon to read a thesis, expound some knotty law point, and maintain and defend his or her explanation of it, against all disputants. If victorious in the contest, the degree of doctor, with the cap and gown, were won and duly awarded." The records of the University show that many women won this degree, and were invested with its insignia.

The legal schools of Bologna were so famous as to overshadow those established in other departments, but these also enjoyed great celebrity. Women won full degrees in medicine, and some were professors of anatomy.

It is a most interesting fact, that those who have chronicled the learning of these historical women, grow eloquent when they speak of their moral excellencies and social graces. They appear to have been as eminent in domestic virtues as they were in science and letters, faultless as daughters and sisters, and lacking nothing of the highest womanly qualities, when they became wives and mothers.

The eminent women of Bologna, of whom one is told many interesting and unusual particulars, are far too numerous to paragraph. I must content myself with short sketches of a few who were most distinguished. As far back as the thirteenth century, when the widely celebrated University numbered ten thousand students, many coming from England and Scotland, there were two women among its eminent professors,—Accorsa Accorso and Bettisia Gozzadini. The first filled the chair of philosophy, and was the daughter of the famous jurisconsult, Accorso, whose glossary of Roman law was, for years, authority with all European tribunals. Of Bettisia Gozzadini, it is related that she was created doctor of laws in 1236, and lectured publicly to the admiration of crowded audiences.

Mention is made by several writers of a very learned woman, who was also invested with the doctor's degree, and wore the cap and gown, and who was a "venerable woman" in 1354, Madonna Giovanna Buonsignori, by name. She was skilled in legal and philosophical lore, was accomplished in Latin and Greek, and discoursed in the German, Bohemian, Tuscan, and Polish languages. The people of Bologna honor her name at the present day.

Every one is familiar with the story of the beautiful and learned professor, Novella d' Andrea, daughter of the eminent jurisconsult Giovanni d' Andrea, distinguished in the fourteenth century. Christine de Pisan, in her "La Cité des Dames", gives a quaint sketch of Novella, which perchance the author received from the father of the fair woman professor. "Giovanni d' Andrea so much loved his good and beautiful daughter, named Novella, that he taught

her letters and law, so that when he was occupied with any care, he might send her to sit in his chair and teach his pupils. And so fair was she, that a little curtain had to be drawn in front of her, lest her beauty should cause the thoughts of her listeners to wander, and her instruction be of no avail to them. And in this manner, she many times supplied her father's place, who loved her so much, that, to bequeath her name to posterity, he gave a famous lecture from one of his treatises on law which he called after her, 'The Novella.' The pictures of Novella show that she possessed the beauty accorded her by fame.

Christine de Pisan was born in Bologna in the fourteenth century, and was the distinguished authoress of her day. Most of her life was passed in France, and her books were written in French. She was the author of fifteen large volumes, and at her death left an immense number of manuscripts. She wrote poetry, history, biography, and tales of chivalry. She was a superior Latin and Greek scholar, and stood high in the estimation of the learned men of the time.

The sixteenth century, which was the age of Vittoria Colonna, was prolific in women of scholarly and artistic renown, who added to the glory of Bologna. Chief among them was Samaritana de' Samaritani, a woman of varied attainments, who appears to have been most highly esteemed by her contemporaries. She was so great a proficient in Greek and Latin that she could converse with the learned doctors of the day, in these dead tongues, and could write them in a masterly manner. Her historical lore caused her to be much consulted by the celebrated writers of the day, and she was so able a theologian, that she could hold her own in lengthy disputations with doctors of theology. In the midst of these pursuits, she found time to study painting, and some of the pictures in Bolognese convents are attributed to her. She is also credited by some writers with having been the assistant of Raphael.

Another eminent woman flourished in Bologna about the same time—Properzia dei Rossi—who was born in Modena, but was educated and exercised her gifts in Bologna. She possessed remarkable beauty and rare talent. Her singing and playing excelled that of all other women of her time, and her talent in art was developed in sculpture. She began her career as an artist, by carving peach stones, sculpturing a "Crucifixion" on this contracted surface, "which contained many heads besides those of the executioners and the apostles". From this she proceeded to work in stone, overcoming easily all difficulties, and executing arabesques, flowers, and animals, in marble, which are seen in one of the principal chapels of Santa Maria del Baracano.

When it was decided to ornament with marble figures the three doors of the principal façade of the church of San Petronio, a cathedral, which if completed, would exceed, in size, St. Peter's in Rome, Properzia applied for a portion of this work. She was required to give proof of her ability as a sculptor. This she did by executing in marble a bust of Count Guido Pepoli, taken from life, and now preserved in the church of San Petronio. Then she received a commission for the execution of two of the groups, which were so admirably designed and cut, as to stir Bologna to great delight. She chose for her subjects the wife of Potiphar, the steward of Pharaoh, and the Queen of Sheba, executing them in alto-relievo. Very many of her sculptures are shown in the Bolognese churches, most of them possessing remarkable grace and beauty. She died at the early age of thirty years. Many of the peach stones carved by her in her early years are preserved as curiosities. One of them contains twelve figures, and on another, exhibited in the

Florentine Cabinet, a "Glory of the Saints," Properzia has carved sixty heads.

In the eighteenth century, which was the age of the French *salons*, the intellectual force and clearness, the wisdom and the wit of women were felt in every nation of Europe. The women of Bologna held a foremost place in the ranks, as they had done for centuries. One of them, Laura Caterina Bassi, born in 1711, must take rank with the gifted women of her own, or of any age or nation. Her father was a doctor of law and a highly cultivated man, and his house was the resort of the literary and scientific men of the day. The precocious little Laura was their pet and plaything, all of them predicting for her a great future. At a very early age she could translate at sight the most difficult Greek and Latin authors. Then she began to study metaphysics and natural philosophy, and soon taxed her master severely to defend himself in his discussions with her on ontology, physiology, and philosophy, for she uttered her own opinions in opposition to his, and maintained them. Before she had reached her twentieth year, she was so learned in abstract mathematics, speculative philosophy, the physical sciences, and in the classics, that all Bologna rang with her praise, and it was determined to propose her as a candidate for University honors.

But Laura was as modest as she was learned, and shrank from notoriety. It required much urging to persuade her to quit the private life she loved so well. The entreaties of her father, and the learned public, at last prevailed, and she sustained the philosophical disputation necessary to a diploma, in the presence of a great crowd of dignitaries from her own and the neighboring cities. Her brilliant success increased the admiration of her town's-people—she had earned the doctor's degree—they were wild with eagerness to honor this young girl to the utmost. So on the 12th of May, 1732, escorted by the college doctors, and a throng of the nobility, and accompanied by ladies of the highest rank, Laura proceeded to the decorated palace hall, where the doctor's degree was conferred on her. She was crowned with a laurel wreath of silver, a ring was placed on her finger, and the university gown thrown round her shoulders, while the president of the Institute of Science addressed her in a Latin oration. To this Laura replied most felicitously, in an extemporaneous address, in the same tongue. A sumptuous banquet followed where Laura won new honors, in a discussion with Cardinal de Polignac, one of the scholars of the day.

Laura Bassi was twenty when she began her career as professor of philosophy, and she continued it for twenty-eight years. The same year that she entered public life, she became the wife of Dr. Verati, a scholarly man, and in course of time was the mother of twelve children. We are told that "arduous as were the duties of her professorship, which she discharged faithfully, she yet superintended her household, and looked after her children as thoroughly as any good commonplace woman, and worked with needle and spindle as well as at her books and lectures". "No distinguished personage," says her biographer, "or crowned head passed through Bologna without paying his respects to Laura Bassi. And when she became professor of experimental physics, the fame of her teaching brought her scholars from the furthestmost parts of Europe, of whom many became eminent in after years." Busy with her studies, her pupils, the duties of her professorship, and her large family, she lived a life of marvelous usefulness, "a many-sided woman," until the age of sixty-seven. Her portraits give us a spirited face, beaming with intelligence.

Contemporary with this brilliant woman lived another,

who if less gifted was not less famous. Anna Morandi was born at Bologna five years later than Laura Bassi, and at a very early age married Giovanni Manzolini, a poor man, who modeled in wax, which he knew how to harden, who was also a painter, and a maker of anatomical models. He was employed to construct a set of models for the use of the Institute of Bologna. Nervous and easily discouraged, he would have thrown up his six years' task before it was half completed, but for his wife, who was devoted to him. She not only learned to model in wax herself, but studied anatomy that her casts might be accurate, and made many original discoveries. She was soon able to exercise the scalpel by her husband's side, and to give scientific explanations of the casts she made. She was invited to lecture on anatomy to private classes, when her wonderful knowledge of the structure of the human body, her marvelous skill in dissections, added to her original discoveries, brought students to her lecture-room from all countries, and she rapidly acquired an enviable European reputation. After her husband's death she was appointed to the chair of Anatomy in the Bologna Institute.

About the same time appeared Maria Gaëtana Agnesi who was born in Milan, but whose renown belongs to Bologna. When twenty years old she was able to discourse in French, Spanish, Greek, Hebrew, and German, as well as in her native Italian, and was also proficient in philosophy and mathematics. While still young, she published her "*Propositiones Philosophicæ*," in which she sustained one hundred ninety-one theses. Then she wrote a treatise on conic sections. And at the age of thirty, she published the great work on which her reputation rests, the famous "*Analytical Institutes*." Professor Colson of Cambridge University studied Italian that he might translate these volumes into English. Never was the work of a woman so highly complimented.

In 1750, the father of Maria, who was professor of mathe-

matics at the University of Bologna, dropped into invalidism, and she was appointed to his place, and filled his chair till his death, when she retired to private life, and lived in retirement till her own death at the age of eighty-one. It is pleasant to add that all writers unite in crediting this learned woman with the highest excellencies of character.

The last women to hold university professorships in Bologna, or Italy, were Clotilda Jambroni, professor of Greek and Greek Literature—and who had, in Europe, the reputation of being one of the best Greek scholars of the last century—and Maria delle Donne, professor of medicine and obstetric science. It was said of Clotilda Jambroni that "there were but three men in all Europe capable of writing Greek as she wrote, and not more than fifteen capable of understanding her". While yet a girl she was appointed to the Greek chair in the junior department of the University of Bologna, was admitted to the Arcadian Academy at Rome, the Etruscan at Cortona, and the Clementini at Bologna. Leaving her home for Spain, with her family, where they remained a year, she was elected a member of the Royal Economic Society of Madrid. She retained the chair of Greek and Greek literature till her death.

The last five women I have mentioned have lived so near our own time, that they are spoken of in Italy as familiarly as are the great characters of our American Revolution. Bologna boasts of them, still feels their influence, and keeps their laurels green. The unique old city still takes pride in its University, with its fifty-nine professors and four hundred students. And as the gray old custodian recounts, *con amore*, the histories of its grand scholarly women, who were as good as they were great, and points out their portraits on the walls, and translates the memorial inscriptions on their monuments, he asserts, with fervor, that there is yet in Bolognese society something of the luster of olden times, that nowhere in Italy is the literary society so elegant, and nowhere in the world are the women so lovely.

THE HYPNOTIC SLEEP.

BY TITUS MUNSON COAN, M.D.

When I was a lad of fifteen or thereabouts, I became interested in what was called animal magnetism, and my first impulse was very naturally to try experiments upon my schoolmates. Most of them resisted my powers, but one of them proved a good subject. Frederic was a boy about a year younger than myself, and of a temperament in every respect the opposite of my own; and I found that by a few passes of my hand along the upper surface of his arm, from the shoulder down, I could entirely paralyze it, or rather I could plunge its muscles into the rigidity of the so-called magnetic sleep. In this condition, Frederic's arm was rigid at the elbow-joint, and not to be bent by any force that I dared to apply; and it continued rigid for a few minutes after each experiment, or until I had relieved him from the spell by making a few passes in the reverse direction, from the hand toward the shoulder.

What was this unusual force, or condition, that affected this boy's arm? It would be a bold person that should attempt to explain its essential nature. Names enough there are for it, as mesmerism, magnetism, odic force, and hypnotism; the latest is perhaps the best, for it implies no explanation of the thing itself.

From the beginning of the world almost, its phenomena have been known—or unknown. The cures effected by the Hin-

du and Chaldean priests, the trances of the fakirs, the laying on of hands that was common in several European countries during the seventeenth and eighteenth centuries, the trances and visions of Swedenborg, the ecstasies of saintly and the month-long slumbers of unsaintly persons, and a hundred other curious phenomena of long-time record, all these are referable to the same cause so darkly understood as yet, still better understood every year than before, because more fully and carefully observed.

The force or condition which we now call hypnotism first came into wide popular notice in Europe under the name of mesmerism, so called after its popularizer, Mesmer. This remarkable person was born in Suabia in the year 1734. He studied medicine under Van Swieten and De Haan, well-known physicians of the time, and at the age of thirty-two he was graduated in Vienna. He was a believer in astrology, and a still firmer believer in the art of advancing one's self by playing on men's love of the mysterious and marvelous. In an early treatise on Planetary Influences he endeavored to prove that the heavenly bodies influenced human bodies by means of a subtle fluid which they radiated to the earth, and which played directly upon the nervous system. From this position the claim to be the recipient and dispenser of the radiating fluid was not far off. He called his radiating

fluid electricity at first, then magnetism, and treated patients by stroking them with magnets. Then, finding that a Swiss priest named Gassner worked cures by the simple laying on of hands, he discarded the magnets and began to manipulate the faithful. The same thing is now advertised under the name of the "manicure".

Mesmer's success with the faithful was such that in 1778 he removed to Paris. At first he received but a small number of patients, charging them only ten louis a month, and posed as a benefactor of humanity.

But he was not a man to remain long unnoticed. His presence was remarkably fine and engaging. The originality of his claims attracted the attention of the public; and he soon added to these the arts of the charlatan. A magic boudoir or cabinet was fitted with a central receptacle from which radiated rods or chords for the distribution of the mystical fluid; here the faithful gathered together, holding these rods and each other's hands; the room was richly furnished and dimly lighted; and here Mesmer, attired in the dress of an Oriental magician, glided to and fro in the circle, uttering strange formulas, touching some, manipulating or shaking others, awing or frightening many; perfumes and soft strains of music floated in from an invisible source, and the effect upon some of the nervous and impressible was so great as to lead to fits of fainting. Public interest was very deeply aroused; the physicians, perceiving the theatrical side of the whole performance, rose in arms, as well they might, to support the dignity of the profession.

The government, sharing in the popular curiosity, for the sagest ministers are but men when it comes to mystical and supernatural claims like these,—the government offered Mesmer a prize of thirty thousand livres for his secret. This he declined, but he enriched himself more effectively by selling it for one hundred livres apiece to no less than three thousand four hundred subscribers in France alone, not to speak of other countries which he visited. Clubs were formed throughout France for the diffusion of the new doctrines and sensations, called *Sociétés de l'Harmonie*; and the excitement went so far at last that a government commission, including Lavoisier, Franklin, and Bailly, among other eminent men, was appointed to examine the claims of the new science. After a very fair and careful examination they reported that mesmerism was a fraud, and that as practiced it had decidedly immoral tendencies. Bailly drew up the report, which was widely circulated by the government, and, much to the credit of the French people, it put a complete stop to the imposture—though as we shall see it was not, after all, wholly an imposture.

Mesmer went to Switzerland where he died in obscurity in 1815; and what was true of the new science, as well as what was false, seemed to be plunged into a profounder hypnotic sleep than that of the most devoted Indian fakir.

The awakening came about the year 1842, when James Braid, a surgeon of Manchester, read his paper on "The Curative Agency of Neuro-Hypnotism", following it in 1843 with a work on the subject of Nervous Sleep. His discovery, in his own words, was that he could artificially produce "a peculiar condition of the nervous system, induced by a fixed and abstracted attention of the mental and visual eye on one object, not of an exciting nature". He first gave currency to the name of hypnotism, and marked out the lines which the later investigation of the subject has mostly followed. Two or three years later Von Reichenbach offered the theory of an imponderable influence which he called "odylic force"; it was a return to the mystic philosophy which gathers around any little-understood province of science. His book attracted much attention, but it was not

until the eminent Professor Charcot of Paris, the leading alienist of Europe, took the matter in hand, now some twenty years ago, that the experimental knowledge of the subject was much advanced.

Thanks to the patient interrogation of Nature by this faithful and penetrating student, we now understand with increased clearness and accuracy the phenomena of hypnotism, or mesmerism, and are beginning to get some insight into the obscure labyrinths of their causes. What are the external phenomena, and how are they produced?

The number of persons who are susceptible to the mesmeric or hypnotic influence is, happily, in the small minority; it must be added that the greater part of these are women and girls. Take such a susceptible person; seat her, or him, comfortably in a chair; direct his gaze to a bright object, preferably a glittering one, as a new coin or a faceted piece of glass, holding it eight or ten inches from the eyes, and above them in such a position that the effort to look at it will bring a certain amount of strain upon the vision by converging the optic axes; this indeed will produce hypnotism in some blind persons. After the subject has gazed a few moments, the eyes will water, the pupils will alternately expand and dilate, and he will pass into one of the states which Professor Charcot discriminates as, according to the depth of the unconsciousness produced, catalepsy, lethargy, or somnambulism.

In the first named form of the hypnotic sleep consciousness is nearly, though not entirely, lost, some dulled perceptions of sight and hearing being left; but the sensitiveness to pain is gone, the respiration is half-suspended, and the action of the heart is irregular. The eyes remain open; but if the operator close one of them, the corresponding side of the body awakes or throws off the hypnotic sleep. The lethargic form of hypnotism is a farther step into the void. While the limbs and body are flaccid, a touch or sometimes even a breath from the operator will throw the muscles of a given part into a state of tension which may endure for hours, even after the sleep has passed away; the eyes are closed. In the third form, or somnambulism, the symptoms resemble those of coma. The body is not so limp as in the lesser degrees of the hypnotic sleep, and the limbs have a tendency to remain in the positions in which the operator may place them, and muscular rigidity is produced at his touch.

I do not believe that Mesmer himself ever had such a perfect control over his subjects as that which the skilled hypnotizer obtains. Mesmer's procedure in magnetizing his individuals was comparatively simple; he seated himself immediately before his patient, "his feet touching, his knees pressing together those of the patient, their eyes gazing upon each other. This he called putting himself *en rapport*. . . . Then he gently stroked the person of the patient, passing his hands over the most sensitive regions of the body. A half convulsive spasm of the nerves was the frequent consequence. It was the victory of the physical emotions over the will." So wrote Biot and Maury, in their excellent paper on Mesmer in Michaud's great book of biographies. What a difference between all this and the profound passiveness of the senses and the mind into which the patient of our time is thrown by a simple act of strained attention, without any physical contact from the operator! Mesmer knew but little of mesmerism in the modern sense of the word.

But these are only the physical symptoms; the strangest part of the hypnotic state remains to be described. It is the alteration of the patient's intelligence, will, emotions, and moral sense, or rather their entire subjection to the will of the

operator. The hypnotized patient believes all that he is told, even in opposition to the evidence of his senses. "He may be regarded as in a condition in which the part of the nervous apparatus associated with conscious perception is thrown out of gear, without promoting the kind of movements which would result even if really in action," says Dr. McKendrick.

He becomes the tool of the operator in a completer sense than that of slavery, for the slave may be at least conscious of the right or the wrong of his acts; while the hypnotized person ceases to be a moral being. The whole inner man is in abeyance; he is an automaton played upon by the hypnotizer. The testimony of the senses is entirely overthrown.

There is no proven "thought-transference" in his case; but if you give him water and call it castor oil, and in addition make faces as the patient swallows it, the grimaces will be repeated as if it were a nauseous dose. Throw down money before him, and say that it shall be his if he will pick it up, but at the same time tell him that he can not pick it up, and he will make the effort in vain. On the other hand, he will swallow nauseous substances thinking them to be delicacies, or embrace imaginary friends, or attack fictitious enemies, or perform the most ridiculous actions at the will of the operator. If the state of hypnotism be not very profound, he will have some consciousness of his actions at the time, and of performing them against his will; and after being awakened he will remember them. But when the sleep is a profound one, no memory will remain of the alien life which the spirit has led for a less or longer time.

The latest researches of Charcot and others show the range of these morbid phenomena, for as such they must undoubtedly be classed, is wider than had been supposed. On the physical side, it is claimed by some that medicines may be made to produce all their usual effects upon the hypnotized patient without his taking a particle of the drug itself; and cases are given in which patients have been inebriated or purged by the mere contact of the bottles that held the aloes or the whisky. Facts of this sort require a good deal of proof. But they are now asserted by reputable physicians, and it is not safe in the presence of so many proven psychical wonders to dogmatize on either side.

There is a story of a learned German theologian who hated extreme views, and was accustomed to illustrate his point by referring to the doctrine of a personal Deity. "There are

people," he would say to his classes, "who hold in the most uncompromising way to the view that there is such a deity; on the other hand, you find dogmatists who are just as positive that there is no personal God at all. Young gentlemen, you will do much better to take the middle view between these two extremes."

It is not always easy to take the middle view between yes and no, but we can safely wait a while before believing that a medicine, or any other body, can act where it is not.

I have reserved for the last the most curious part of the subject,—I mean the moral aberrations, or I should rather say the abeyance of the moral faculties that often goes with the hypnotic state. The patient may become either the instrument or the victim of crime in the hands of the hypnotizer. It was suggested to a subject in Bordeaux that she should fire a shot into the windows of a government office. She went off at once to get a pistol, and would undoubtedly have done the act if she had not been stopped. Acts of forgery may be committed under hypnotism without the least question of their wrong. In a case related by Professor Liegeois, a young woman signed a promissory note for five hundred francs, "which," said he, "it would be difficult to disprove in court". Again a story is related at length in the Paris journals of a girl whose lover could throw her into the hypnotic state at will. Tiring of her at last, and wishing to marry some one else, he conceived the idea of willing her to commit suicide; and his plan was successful.

If these are facts, it is not easy to conceive any limit to the crimes against the individual, which might be made possible by the means of the hypnotic power. The best informed physicians recognize that there is more in mesmerism than even Mesmer supposed; and their advice to those who are investigating it is to keep their knowledge to themselves, and to the laymen not to meddle with the subject. This is a piece of advice which is disregarded by at least one enthusiastic student, the Emperor of Brazil, a man who has the true intellectual passion for "the best that is thought and known" on many new subjects. It is not in hands such as his that any misuse of the new knowledge would occur. But in our own, as in Mesmer's time, it is not a thing for charlatans or even for private amateur experimenters. Let us leave the investigation of hypnotism, or the mesmeric sleep, to the skilled and conscientious care of men like Charcot and his co-laborers in scientific research.

OUTLINE AND PROGRAMS FOR THE C. L. S. C.

OUTLINE OF REQUIRED READINGS FOR MARCH.

First Week (ending March 8).

1. "Physiology and Hygiene." Part II. Pages 257-261.
2. "Plan of Salvation." Chapters XII., XIII., XIV.
3. "Classic German Course in English." Chapters I. and II.
4. "Bodily Heat and Clothes." THE CHAUTAUQUAN.
5. "Riding and Driving." THE CHAUTAUQUAN.
6. Sunday Reading for March 4. THE CHAUTAUQUAN.

Second Week (ending March 16).

1. "Physiology and Hygiene." Pages 261-265.
2. "Plan of Salvation." Chapter XV.
3. "Classic German Course in English." Chapter III.
4. "The European Situation." THE CHAUTAUQUAN.
5. "The Unfolding of Plant Life." THE CHAUTAUQUAN.
6. Sunday Reading for March 11. THE CHAUTAUQUAN.

Third Week (ending March 24).

1. "Physiology and Hygiene." Pages 265-269.
2. "Plan of Salvation." Chapters XVI., XVII.
3. "Classic German Course in English." Chapter IV.
4. "Glass Making." THE CHAUTAUQUAN.
5. "Life and Manners." THE CHAUTAUQUAN.
6. Sunday Reading for March 18. THE CHAUTAUQUAN.

Fourth Week (ending March 31).

1. "Physiology and Hygiene." Pages 270-275.
2. "Plan of Salvation." Chapters XVIII., XIX., and Supplementary Chapter.
3. "Classic German Course in English." Chapter V.
4. "Literatures of the Far East." THE CHAUTAUQUAN.
5. "Scandinavian Literature." THE CHAUTAUQUAN.
6. "The Homes of Some Southern Authors." THE CHAUTAUQUAN.

7. Sunday Reading for March 25. THE CHAUTAUQUAN.
SUGGESTIVE PROGRAMS FOR LOCAL CIRCLE WORK.

FIRST WEEK IN MARCH.

1. Roll-Call—Quotations from Luther.
2. The Lesson.
3. Paper—Life of Luther.
4. Review—Luther's "Table Talk."
Music.
5. Recitation—Translation of Luther's hymn "*Ein feste Burg ist unser Gott*." (Whittier has a fine rendering of it. A comparison of different translations might be made).
6. Reading—"Waken, Lords and Ladies Gay," by Sir Walter Scott; "Life in the Autumn Woods," by Philip Pendleton Cooke; "The Horseback Ride," by Sara Jane Lippincott (Grace Greenwood), "The Last Ride Together," by Browning; or any similar selection.
7. Paper—Remarkable Rides. (See "Tam O'Shanter," "John Gilpin," "Rhyme of the Duchess May," "Legend of Sleepy Hollow," "Mazeppa," "Paul Revere," "Sheridan's Ride," etc.
8. A drill in gymnastics, with dumb-bells if possible.

SECOND WEEK IN MARCH.

1. Roll-Call—Quotations about March.
2. The Lesson.
3. A study, with microscope if possible, of buds gathered from different trees. (Some one should be appointed beforehand to gather and label them.)
4. Selection—"Among the Trees." By Bryant.
Music.
5. Paper—The Thirty Years' War.
6. Paper—The Crimean War.
7. Sketch—Florence Nightingale.
8. Reading—"Charge of the Light Brigade," and "Charge of the Heavy Brigade." By Tennyson.

THIRD WEEK IN MARCH.

1. Roll-Call—News Items.
2. The Lesson.
3. Exercises in definitions. Let some one appointed beforehand have ready to be defined a list of words selected from the "Required Readings,"—technical terms and all words that are new or difficult. These could be given out as in a spelling or pronunciation match.
4. Reading—Translation of Virgil's story of the Laocöon. (A good rendering of it will be found in Wilkinson's "Preparatory Latin Course in English.")
Music.
5. Paper—The Jew in "Nathan the Wise" compared with Shylock in "The Merchant of Venice", Isaac in Scott's "Ivanhoe," and Fagin in Dickens' "Oliver Twist."
6. Review—"The Grandissimes." By Cable.
7. Table Talk—Glass Making.
8. List of questions under the title of "Curios" in *The Question Table*.

FOURTH WEEK IN MARCH.

1. Roll-Call—Question for the Question Box.
2. The Lesson.
3. Exercise in geography. Locate places mentioned in the "Required Readings."
4. "Questions and Answers" in THE CHAUTAUQUAN on the "Plan of Salvation."
Music.
5. Paper—Story of Oberon and Titania as given by Shakspeare in "A Midsummer Night's Dream."
6. Reading—Queen Mab, from "Romeo and Juliet," beginning "O, then, I see, Queen Mab," and ending "being thus frightened . . . and sleeps again."
7. Table Talk—Current News.
8. Debate—Resolved: That the literature of the nineteenth century is better than that of any previous age.

LOCAL CIRCLES.

C. L. S. C. MOTTOES.

"We Study the Word and the Works of God."—"Let us Keep Our Heavenly Father in the Midst."—"Never Be Discouraged."

C. L. S. C. MEMORIAL DAYS.

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| 1. OPENING DAY—October 1. | 11. SPECIAL SUNDAY—May, second Sunday. |
| 2. BRYANT DAY—November 3. | 12. SPECIAL SUNDAY—July, second Sunday. |
| 3. SPECIAL SUNDAY—November, second Sunday. | 13. INAUGURATION DAY—August, first Saturday after first Tuesday; anniversary of C. L. S. C. at Chautauqua. |
| 4. MILTON DAY—December 9. | 14. ST. PAUL'S DAY—August, second Saturday after first Tuesday; anniversary of the dedication of St. Paul's Grove at Chautauqua. |
| 5. COLLEGE DAY—January, last Thursday. | 15. COMMENCEMENT DAY—August, third Tuesday. |
| 6. SPECIAL SUNDAY—February, second Sunday. | 16. GARFIELD DAY—September 19. |
| 7. FOUNDER'S DAY—February 23. | |
| 8. LONGFELLOW DAY—February 27. | |
| 9. SHAKSPERE DAY—April 23. | |
| 10. ADDISON DAY—May 1. | |

Every Local Circle is the possible nucleus of a permanent literary and scientific society which shall gather about itself the appliances and books necessary to such an organization, shall become recognized as an intellectual center in the community, and shall create and sustain an atmosphere of thought and culture. This is the ideal aim for every club, and when once the resolution is taken to be a permanent, active, growing association the increase is rapid and sure. One splendid example of what may be done is reported from AUBURN, NEW YORK. "The Vincent Chautauqua Circle has an ambition. It desires to be the nucleus of the

coming Auburn Natural History rooms. The circle has established itself in apartments hired for the purpose, and is fixing them to its taste. The rooms are handsomely carpeted, heated by steam, lighted by gas, and are united by folding doors. The members of the circle have removed the natural history specimens and mineralogical specimens from the rooms in the court house to the new rooms and have put up suitable glass cases to preserve them. They have already about seven hundred specimens and they desire contributions from whatever source to enable them to extend the cabinets. They own geological charts and valu-

able books of reference and they expect a lively public interest in the venture. Vincent Circle was organized in October, 1882, with eleven members, and has to-day over seventy-five."

The St. Paul's Circle of TORONTO, CANADA, has put out an attractive and suggestive pamphlet outlining the year's work. The officers, membership, committees, constitution, and course of study are in it, also a prospectus explaining the C. L. S. C. and the organization and objects of St. Paul's Circle. The year's program shows many admirable features: an early start; many opportunities for open discussion; frequent lectures by available local talent; local history; a circle paper, *The Cloud Lifter*, in whose correspondence column "members may air their grievances or hobbies"; an annual banquet; a sleigh ride; and open meetings.

The circle of SHARON, CONNECTICUT, proposes an exchange of essays and other original papers. Any circle willing to exchange may address the secretary of the circle, Mary R. Woodward, Sharon, Conn.

One of the latest and strongest developments in Local Circle work is the Union. For two years attention has been called frequently in this department to the organization and workings of these bodies. The ends to be reached by the Union are evident; it brings together larger numbers, dignifying the work and stimulating better efforts; it secures larger social results; it affords opportunity for comparisons of methods; it permits more effective methods of spreading information concerning the C. L. S. C. and of organizing new circles; it makes lecture courses and large social gatherings possible; in short, it gives all the advantages of co-operation and numbers. The means employed in the various Unions have been noted from time to time. In the Northern Illinois Union an annual banquet, a column of Chautauqua news in *The Inter-Ocean*, competitive examination, addresses from Chancellor Vincent, Principal Hurlbut, Dr. Dunning, and others, departments at the meetings last summer of the Inter State Exposition and the International Teachers' Association have been tried with the result that in three years its circles have grown from nine to fifty. In Rochester, New York, a Central Circle of fifteen small circles meets each month, from two hundred to two hundred fifty being usually present. The advantages have been pronounced; fraternal feeling has been increased, many who would have been laggards have been stimulated to effort, and specialists have been secured for lectures who would have been inaccessible to unassociated circles. The United Circle of Philadelphia has two hundred sixty members, and has enjoyed a course of five lectures on "Living Authors of America", and on "Physiology and Hygiene"; the latter being fully illustrated by charts, apparatus, and experiments. The business affairs are conducted by a council of delegates known as the central committee, chosen by the various local circles. The Worcester (Mass.) Union reports among the advantages it has derived, the opportunity of giving to all of the circles included in the Union the best papers, talks, etc., which each one has produced. Lectures and the Chautauqua Vesper Service have also been pleasant occasions calling them together. The advantages in Brooklyn, and at other points have been similar. The obstacles to success are comparatively few and of the same nature as those of any circle. The increase of these Unions means the solidification and the perpetuation of the Chautauqua idea in the community and we are hopeful that leaders everywhere will make efforts to organize them. For the guidance of those contemplating an association we print

below the constitution of the Milwaukee Chautauqua Union:

CONSTITUTION OF THE MILWAUKEE CHAUTAUQUA UNION.

I. All local circles of the C. L. S. C. in the County of Milwaukee, which shall so desire, shall be members of and compose the Milwaukee Chautauqua Union.

II. The object of the Union shall be to stimulate interest in the work of the C. L. S. C.; to advance the common interest of the local circles of this county and to promote closer relations between them.

III. The general charge and supervision of all matters pertaining to the Union shall be vested in a board of directors, to comprise two members from each circle; of whom the president of each circle shall be one, and the other shall be elected by each circle at the beginning of each college year.

IV. The board of directors shall, at its annual meeting in each year, elect a president, vice-president, secretary, and treasurer. No two of these officers shall be chosen from the same circle.

V. There shall also be an executive committee of the board of directors, to comprise as many members as there may be local circles represented in the board. The president and secretary of the board shall be the representatives of their respective circles on this committee. The other members shall be appointed by the president, one from the representatives of each of the other circles, at the annual meeting of the board. The president and secretary of the board, shall be chairman and clerk, respectively, of the executive committee.

VI. The first annual meeting of the board of directors shall be held in the parlors of Plymouth Church on Monday evening, November 7, 1887, at half past seven o'clock; and thereafter the annual meeting shall be held at the same place and hour on the last Monday in October of each year. But the board of directors shall have power to choose a different place for the annual meetings, after the first, either by law or by vote at any meeting.

VII. The board of directors shall have power to adopt by-laws not inconsistent with this constitution and shall therein more particularly define the duties of its officers and of its executive committee, and make such regulations as may be proper concerning its annual meetings; and may provide for such other meetings as it may seem desirable to hold.

VIII. A quorum of the board of directors shall consist of representatives from a majority of the circles composing the Union.

IX. There shall be held each year three Union meetings of the local circles of the county of a literary and social character, and such other meetings as the board of directors or its executive committee shall deem advisable. These meetings shall be under the charge of the executive committee, subject, however, to instructions from the board and to the provisions of the by-laws.

X. Each circle shall on or before the last Monday in November of each year pay into the treasury of the Union an annual fee of \$2.50.

XI. This constitution may be amended at any time on the vote of two-thirds of the circles comprising the Union.

DIALECT STUDIES.

A contribution to the dialect studies comes from IRON HILL, KENTUCKY. Our correspondent notes the following peculiarities as common in Kentucky and Texas:

Mulley cow, hornless cow; *branch*, brook, small stream; *shucks*, husks; *grub*, lunch; *woods* (plu.), wood; *pack*, carry; *tole*, carry or take; *carry*, to take or accompany, as carry a horse to water or a young lady to a ball; *receipt*, recipe; *project*, scheme, experiment; *meeting*, divine service, church; *mām mā* and *pāpā*, pronounced *mām'mā* and *pā'pā*; imperial wood peckers are called *wood-cocks*; wood-peckers of all kinds, *wood-chucks*; *blue-jays*, jay-birds; in western Texas *corral*, for horse-lot in Kentucky; western Texas, *tank*, eastern Texas, *pool*, means pond; a minute body of water may be called a *lake*. In Ken-

knobby we have *knob* for abrupt hill or bluff; in Texas, *gallery* is used for porch.

The following words and phrases are offered by the same lady who furnished the list from Windsor, Vermont, in the February issue of THE CHAUTAUQUAN:

In southern Ohio to go driving in a buggy is *buggy riding*, to wink is to *bat the eye*, while a tin pail and a coal-hod are both *buckets*. In Kentucky an odd expression is *putting the name in the pot*, i. e. make dinner arrangements. In western New York they say *saw buck* for saw-horse, and *sugar-bush* for sugar orchard, and quite frequently *kettle* for pail. In Connecticut when a person becomes better or more cheerful after illness or depression they are *chirk*. In Indiana they say *paddle* for whip, as, "I would like to *paddle* that child well"; *piece*, for light lunch; *dumb*, for stupid, when we say numb; *get to go*, in place of simple go; *frosted feet*, for chilblains. In southern Virginia a covetous look, as one child eyeing wistfully another's apple is,—"she laps her eye on my apple".

Dialect studies from the Pierians of SUMMIT, MISSISSIPPI:

Hand running, for successively, as "I have had the same dream three nights *hand running*"; *fire-dogs* or *dog-irons*, for andirons; *pullikins*, for forceps; a *bit*, for 12½c., as *two bits* for 25c., *four bits* for 50c., etc.; a *picayune*, for 5c., common in Louisiana; *pickaninny*, for a little negro; *lagniappe*, for good measure, a treat given by merchants; *chair board*, for wainscoting; *growing crops*, for cultivating them; *raising hymns*, for leading them; *pindars*, for peanuts; *lick log*, a log on which salt is placed for cattle; *piggin*, a small wooden vessel used for milking, etc.; *may pop*, for passion flower; *devil's snuff-box*, for species of mush-room; *smell-melon*, for species of dwarf cantelope, called in Tennessee and Georgia pomegranate; *turkey berry*, for winter green; *blue John*, for slightly sour milk; *tote*, for carry, used chiefly by negroes; *hoodoo*, for voodoo, a superstition in New Orleans, La.; *hoosier* is called in Georgia a *cracker*, in Tennessee a *country hunker*, in Mississippi a *dodger*; *rattlebox*, for a silk-weed pod; *evening* for afternoon, and *night* for evening; *plum*, as "The bucket is *plum* full"; *clear*, as "We are clear through."

NEW CIRCLES.

CANADA.—Goethe Circle is a new organization in MAHONE BAY, NOVA SCOTIA.

MAINE.—"Self culture our aim" is the motto of BRISTOL Circle. Bitter-Sweet Club has ten members in WALDOBORO.

NEW HAMPSHIRE.—NEWPORT Circle reports a successful winter's work and a membership of nineteen. Eleven members in ROCHESTER form the Cocheco Circle. Meetings are held biweekly. There are twelve hard-working students in the circle at SALEM DEPOT.

MASSACHUSETTS.—The Mt. Benedict Circle organized in EAST SOMERVILLE under auspicious circumstances with twenty members and a prospect of several more. Dodonian Circle, WEYMOUTH, is doing faithful work. Its motto is from Dante, "Think that to-day shall never dawn again." A Chautauqua Circle is connected with the Young Women's Christian Association of Boston and is creating a general interest in the Chautauqua movement. The Hale Circle of BOSTON named in honor of Counselor Hale, has thirty members. PETERSHAM reports a new circle.

RHODE ISLAND.—Thesaurus of PROVIDENCE takes for its motto, "The great thing in this world is not so much where we stand as in what direction we are moving." Besides the regular officers, an executive committee of three is chosen, one going out of office and a new one taking his place at each meeting. The interest was sufficient to carry

the meetings through the busy Christmas time, with no desire for a vacation.

CONNECTICUT.—Red Mount Circle is a new organization of NEW HAVEN, and began with eighteen names on its list of members. PLANTSVILLE'S circle is named the Old Homestead.

NEW YORK.—UTICA has now three Chautauqua circles. Two of the nine members of SOUTH BYRON Circle are graduates reading for seals. Seventeen members of the Class of '91 are reported from SMITHTOWN BRANCH. The twenty-four members of Rip Van Winkle Circle meet weekly in SALAMANCA and follow the *Suggestive Programs* of THE CHAUTAUQUAN. Hedding Circle was founded by a pastor in ROCHESTER who saw the need of engaging the young people in such work as the C. L. S. C. supplies. A hopeful beginning is reported. "The hope of a nation lies in its love of knowledge," is the watchword of the Fernleaf in HOLLAND. ROME has a new circle called the Maids of Mohawk Valley. A circle has been formed by three teachers of the public schools in GLEN COVE.

NEW JERSEY.—The membership and average attendance of Wendling Circle, NEWARK, is eight. The first circle reported from HACKENSACK, the Whittier, has a large membership, and holds weekly meetings with well-arranged programs.

PENNSYLVANIA.—Ladies of Mt. AIRY and vicinity form Perianther Circle and have for their motto, "Nothing is impossible to industry." Circles from PHILADELPHIA lately reported are the Northwestern and the Simpson. The roll-call in the JOHNSTOWN meetings is answered by quotations from an author chosen at the previous meeting. "Nineteen members, all doing good work, and delighted with the studies; we hope to take at least the four years' course," this from RIXFORD. SUMMIT CITY Circle began with an enrollment of ten names. "Earnestness and helpfulness" are characteristics of the members in DERRY STATION.

IN THE SOUTH.—Weekly meetings are held by the Philomathic of HORSE HEAD, MARYLAND. Three new circles are reported from ALABAMA, at WETUMPKA, FLORENCE, and ROCK MILLS. A pleasant circle is at work in CLINTON, MISSISSIPPI. Circles began with bright prospects in MARSHALL, MEXIA, and PALESTINE, TEXAS.

OHIO.—Seven ladies of TOLEDO comprise Anderson Circle. An interesting program was rendered by Vincent Circle in XENIA on Milton Day. MECHANICSBURG Mistletoe limits its membership to fifteen. MERCER and ATWATER have new circles.

INDIANA.—The following is from CORYDON: "Our class was organized this year and our meetings are well attended and full of interest. We follow closely the programs suggested in THE CHAUTAUQUAN as they require but little modifying to suit our needs. Our circle is small but enthusiastic and every member willing to work hard." NEW ALBANY has a circle of twenty-one; its motto is, "A noble purpose to a noble end." The new circle of RUSHVILLE counts several graduates among its members. The Altontians of ALTON are four in number.

ILLINOIS.—A lady in St. CHARLES who read alone for two years is now the leader of a class of thirty members. "Much benefit and enjoyment" is the verdict from the Truth Seekers of TAYLORVILLE. In SAVANNA the two circles are named Alpha and Zetesian, the former meeting in the afternoon, the latter in the evening. Alpha Circle takes much interest in *The Question Table*. SHELBYVILLE also has two circles, the Sorosis and the Clover Leaf. Mistletoe Circle has pleasant afternoon meetings

weekly in RANTOUL.—The secretary in PECATONICA says, "We are trying to improve our work each week."

—Good words have been received from the Mayflower and Aryan of AURORA, from BEARDSTOWN, BRADLEY, CHILLICOTHE, and PLEASANT HILL.—SHERIDAN Circle has had a course of five lectures.

KENTUCKY.—Rapid progress has been made in CARLISLE Circle.

MICHIGAN.—CENTREVILLE Circle follows the programs of THE CHAUTAUQUAN.—Sixteen names are sent from UNION.—A large circle is at work in MANISTEE.—Interesting meetings are held in MANCELONA.—Good work is done in circles at JACKSON and HANCOCK.

WISCONSIN.—HUDSON Circle has become so large that a division was deemed advisable; the second division holds its meetings in the afternoon.—Rock River Valley Circle has six members in INDIAN FORD, and the motto, "My light is none the less for lighting my neighbor's."—LEON and BRODHEAD have new organizations.

MINNESOTA.—Two new circles, Ridgwood and Vincent, both large and flourishing, report from MINNEAPOLIS.

IOWA.—The thirty-three members of BELLE PLAINE'S new circle include several graduates.—An excellent circle in DES MOINES is the Riverside. A course of lectures forms a part of its plans for the year.—Much interest is evinced by the class in ORANGE CITY.—The secretary in ALLERTON writes, "I think I can safely say that we have one of the very best circles in Iowa. Every member is a worker from the word go, doing all possible to make a brilliant success of our work."

ARKANSAS.—The Excelsior Club of HELENA is an association of young Jewish people.—LITTLE ROCK has a new circle.—OSCEOLA Circle reports a delightful season.

MISSOURI.—An excellent class with fifty-four members is working in HARRISONVILLE.—A recent organization in ST. LOUIS is connected with the Union M. E. Church.—The work is well under way in MARSHALL.

COLORADO.—An '88 from Ohio going to MONTROSE organized there a fine circle which sends greeting and this invitation: "Should any Chautauquan reach the silver San Juan, let him or her stop off at Montrose and the latch string will be out, and a C. L. S. C. welcome extended."

KANSAS.—Varied talent is represented in SILVER LAKE Circle, and the work is carefully planned and faithfully executed.—Coronet Circle of JAMESTOWN beginning promptly with Opening Day was not obliged to hurry to make up for lost time, and consequently has done excellent work.

—Three members in TONGANOXIE, who read last year, have now the company of seven more, forming all together the Golden Sheaf.—"This is a new country and money hard to get, but we are trying to let the C. L. S. C. light shine, by loaning volumes of previous years," says the secretary in CUSTER.—After some discouragements NEWTON Circle is bravely at work.

NEBRASKA.—A new circle of LINCOLN is the Avon.—Hyperion Circle in COLUMBUS has a membership of eighteen. Memorial Days have been celebrated with delightful programs.—Eight names are sent from OVERTON, and twenty-seven from PONCA.

NEW MEXICO.—The president of ALBUQUERQUE College has organized a circle there.

DAKOTA.—There are nine members in LAKE HENRY Circle, and eleven in HOT SPRINGS Circle.

WASHINGTON.—Cascadia Circle is an enthusiastic one, having many plans for improvement, one of which is the founding of a public library in NORTH YAKIMA.

OREGON.—*Nota Bene* began in PORTLAND with six members, and is striving for a larger circle.

CALIFORNIA.—Quadriga is a new circle of DOWNEY. REORGANIZATIONS.

CANADA.—The BARRE Circle is in a flourishing condition under the energetic president, who organized it in '84. Eight of the original members expect to receive their diplomas at Chautauqua next summer.—The LONDON Circle is fully alive to the benefits of hard work. Its plans are complete and rigorously carried out. One excellent feature is taking up the regular lesson *first*, giving it the fresh interest of the evening.—The circle of SYDNEY continues active.—The Berkeleys of TORONTO are making much of Canadian history and literature.—The five members of the St. Gabriel of MONTREAL are all C. L. S. C. *regulars*, declaring that they have no sympathy with local membership. The St. Gabriel spends its evenings reviewing the readings by conversation, preferring this plan to a program.—Granite Circle of BLOOMFIELD, PRINCE EDWARD, has eight members.

MAINE.—The greatest interest is announced among the eighteen members of the North Star of GREENVILLE. No doubt the "free discussion" they report is at the bottom of the interest.—At KENNEBUNKPORT, the Ocean Circle has eighteen members and the ranks are always open to new-comers.—The Mountain Echo Circle of BRIDGTON tried THE CHAUTAUQUAN's plan of awarding souvenir cards to the most successful guessers of Bryant quotations on that Memorial Day, and found it highly entertaining.—The Chautauquans of ROCKLAND have formed a compact with the Y. M. C. A. of the city which promises good to both. The circle is to have the use of the latter society's parlor, on condition it admits to membership any Y. M. C. A. member and its membership joins the ladies' auxiliary. Under this management the circle is growing rapidly.—Reorganizations of the Kennebec Valley Circle of GARDINER, the LISBON FALLS Circle, the Clio of MECHANIC'S FALLS, the Hobart of NORTH YARMOUTH, and the Olympic of YARMOUTH are reported.

NEW HAMPSHIRE.—The large addition (seventeen members) made to the MEREDITH Circle this year is attributed to the influence of the Assemblies. This circle is one of pure Chautauqua blood—it is going to "keep right on" next year in spite of the fact that its original members graduate. Meredith's history and that of New Hampshire have received particular attention from the circle.—The Granite of WILMOT FLAT is able to report itself one-third greater this year. The interest is large and seems to be of the kind that holds out.—Larned Circle of CHESTER, finds it satisfactory to give a large amount of attention to the lesson and it keeps everybody interested in making the evening's program a success by giving every body something to do.—The '87 circle of SWANZEY, the Ashuelot, goes on with the course. New members have been added and the outlook is for a splendid *permanent* circle in SwanzeY. May such true-blue Chautauquanism increase!—Throughout the Granite state, the old circles are as a rule at work. From MILFORD, the Argus (thirty-six members), from HOPKINTON, the Aurelian (fourteen members), from EXETER, the Swamscott (fourteen), from ACWORTH, the Beryl Mountain (eighteen). A second circle of ten at EXETER, and the NASHUA Circle report reorganizations.

VERMONT.—The Treasure-Seekers of GLOVER hit on a happy idea last fall; it is described in a local paper: "Our last meeting was held at Willoughby Lake, where we spent two days. Our circle numbers ten, and, with a few congenial friends, we occupied what is known as Churchill

camp, a large frame building situated on a wooded point overlooking the lake. We divided our program into three parts. The first part, consisting principally of geology, we took up in the afternoon. In the evening, we gathered around the table in the camp, and began our meeting with a vesper service from "Chautauqua Songs," after which we did more work on geology. The next morning, after viewing the sunrise from the lake and breakfasting, we boarded the steamer for a ride up the lake. At the head of the lake the party separated. Five climbed up the mountain, the remainder returned to camp. After the return of the mountaineers, we met out under the trees, to finish our program, which consisted of selections from THE CHAUTAUQUAN, music, and other exercises. It was voted to hold another meeting at Willoughby next year, hoping to be joined by other circles, and with a view to forming a permanent organization for northern Vermont, and taking up a part at least, of the assembly work. "The third year the pleasantest" is the welcome news from LUDLOW. The Clio Club of NEWPORT is on its fourth year with twenty-six members. NORTHFIELD has a membership of thirty-four this, its third year.

MASSACHUSETTS.—Among the many reorganizations in Massachusetts is the WILLIAMSBURGH Circle of eight members, the RIVERSIDE of SOMERSET (seventeen members), the PLYMOUTH club, "enthusiastic" and doing good work, the PANSY of MANSFIELD (fifteen members), the WHITTIER of LANESVILLE (four), the PAWTUCKET of LOWELL (twenty-two), the LONG PLAIN Circle, the HALE of HOLBROOK (seven members), the HINSDALE Circle, the WHITTIER of AMESBURY (thirty-four), the CASTALIAN of WHITINSVILLE (thirty-seven members), the PALLAS of WAREHAM (eighteen), the CHADBOURNE of WEST CHELMSFORD (eleven members), the BEVERLY FARMS Circle. The Garnet of FITCHBURG inserts in one of its programs this idea for responses to roll-call: "Something found during the month outside Chautauqua reading, of special interest, value, or help." Strict enforcement of the following rule helps on the work of the Paul Townsend of COCHESSETT. A member appointed for entertainment and unable to furnish it, must procure a substitute, or provide an equivalent exercise. A fine of two cents is required for each appointment not fulfilled. The Berkeley of BOSTON was organized in 1882 and now numbers twenty-six members. At WEST SUTTON, the club, always enthusiastic, reports fresh interest. Warren Circle of WORCESTER finds its best success in appointing a teacher and taking one book at a time rather than in following the usual plan. SOUTH FRAMINGHAM Circle has devoted its meetings for two years to questions on the books. This year they take up the readings in THE CHAUTAUQUAN, having papers or sets of questions prepared on each. Select readings are added also. A set of bright programs comes from the Wonomia of NANTUCKET. We notice that the *Astronomical Notes* and *The Question Table* both go into the Wonomia's programs. The Raymond of LYNN is having large success. During the summer many of the circles visited the Framingham Assembly and gained fresh enthusiasm. They then opened the year with a reception which interested outsiders and ultimately secured several for the membership. "We use all the means we can think of to impress the C. L. S. C. readings on our minds," writes the secretary of MELROSE Circle. The result is certainly proof of the value of such effort for here in its fourth year the circle finds its membership increasing so that an "annex" seems necessary. Good stuff here for a Seal Course Circle.

RHODE ISLAND.—The Clio of PROVIDENCE has fourteen D-mar

members. It shows some excellent programs. Milton Circle, also of PROVIDENCE, has fourteen members. A third enthusiastic circle of PROVIDENCE has inaugurated an ambitious scheme: it is to go, as a circle, to Framingham next summer. To effect this a box is kept in the meeting room, into which each member drops whatever he can afford, the sum collected to go toward the rent of a cottage—may the box be full!

CONNECTICUT.—The Chautauquans of HARTFORD miss Dr. Steven, sorely. His energy and enthusiasm had made the circle large and successful and his death has left many with the feeling that without him any organization is impossible. Two circles, however, are in operation in the city.

The Phrontisterion of NORTH HAVEN has fourteen members and varies its programs with many exercises none of which, however, it finds so attractive as the regular lesson. DANBURY Circle has been studying the local history of the town. Woolsey of NEW HAVEN has twenty-four members and opens its ranks to all. Any C. L. S. C. student is welcomed to the Rose Standish of PLAINFIELD. The Crescent of SHELTON is now in its third year and going on to the end. SAYBROOK Circle has ten members. The Pond Lilies of WOODBRIDGE are six in number.

NEW YORK.—There has been a decided increase over last year's membership in the WEST SOUTHAMPTON Circle, and interest is reported. At JAMAICA the Chautauquans of long standing are greatly encouraged by a new circle of thirty-three '91's. The old circle does a high grade of work, and has no idea of abandoning its organization. OLEAN's class has had a long experience and is doing as good work as ever. The circle placed sets of C. L. S. C. books in the Public Library and the Y. M. C. A. Rooms this year and also sends THE CHAUTAUQUAN to the Y. M. C. A. EAST GREENBUSH has a circle whose organizer, the Rev. I. B. Armstrong, has made a wonderful record as a C. L. S. C. worker. For eight years he has followed the course, organizing several circles. "To keep his young people at work," he gives as his reason. A diameter of nine miles is remarkable even among the endless variety of Chautauqua circles. The one in question is at CHILI STATION and in spite of the disadvantages of distance, the readers are faithful and interested. The Argonaut of BUFFALO started its fourth year with thirty-three members. Printed programs of future meetings are sent each week to members and serve well to keep interest alert. At MILFORD the most important point in the program is the lesson, though various exercises are employed. MONTICELLO Circle has the invigorating presence of three Pansies. A BROOKLYN Circle of ninety members shows no little ingenuity in the task of keeping so large a number interested. The question method is largely followed and many different methods of arranging the questions are adopted. The circle also employs various extra exercises. At ROUND LAKE the excellent practice of opening with Scripture reading, prayer, and song is followed. This circle uses the blackboard with advantage whenever the lesson admits. The points in the Empire state reporting reorganizations are MEDINA, CROSEYVILLE, PIKE, POUGHKEEPSIE (the Enodia, seven members), WINDHAM, ATTICA (the Aster, seventeen members), BINGHAMTON (the Tabernacle, thirty-seven), SYRACUSE (Onondaga, three members), MALONE (Adirondack, thirteen members), MIDDLETOWN (Clonian, seventeen members), MANCHESTER, MT. LEBANON (Sunrise, eight members), CHAUTAUQUA (twenty-three members), FULTON (Lower Oswego Falls Circle), CANASERAGA (Walker, nineteen), BROOKLYN (Philomathean), BAY SHORE,

BROOKFIELD, and SACKETT'S Harbor (twelve members).

NEW JERSEY.—The Allo Circle of HANCOCK'S BRIDGE is a courageous body. Two of its lady members drive two miles to the meetings, and on return put their horse into the stable themselves. The circle edits a monthly periodical, and studies local history, in which there is much interest in the vicinity. The house in which the meetings are held is one hundred sixty-two years old.—The Atlantis of SHILOH makes up a program of blackboard exercises, select readings, the game of "throwing light," and a review of lessons.—A NEWARK circle composed of "three drug clerks and a leather manufacturer" offers a good example of what love of learning will induce people to do. These persons are the busiest of the busy, not being free until late in the evening and having great difficulty in securing time when all are at leisure for their meetings. Yet in spite of obstacles they are holding out.—WOODBURY Circle has twenty-one members for its fourth year, and it welcomes all Chautauquans to membership. It belongs to the United Circle of Philadelphia.—A letter from a member of the Vesta of GOSHEN contains some interesting points: "We have a rule this year that we shall commence exactly at an appointed hour. Those that are late are *required to make a speech*. The different circles of our county are organized into the Cape May Chautauqua Association. We think we are steadily advancing. Every year in the summer we have a Chautauqua picnic on the shore, participated in by all the circles of the county. We invited the Vineland Circle last summer and twenty-two came. We have always given good reports of these days to our newspapers. There are circles in nearly every village in the county now and we are working hard to induce the remaining ones to organize. We have started what is termed 'Our Chautauqua Corner' in one of our county papers, soliciting contributions from all the circles for it."—The Emerson of CRAWFORD responds to roll-call by quotations from the author whose birthday comes about the time of the meeting. The author is chosen by the committee on programs.—There is a wholesome clause in the constitution of the EDGEWATER Circle. It reads: "Every member shall guard zealously the interests of the class, and in inviting friends to the meetings shall invite only those who really take an interest in the work of the society."—The circles at VINELAND, BRIDGEPORT, DENVER, and LAWRENCEVILLE have reorganized.

PENNSYLVANIA.—Four circles report from PHILADELPHIA this month, the Hawthorne, the Longfellow, the Philadelphia, and the Seaside Assembly of about eighty-five members.—The Kimball of HOMESTEAD sticks close to the regular work, and maintains good interest. It will close the year with a banquet.—The secretary of the Bryant of CHAMBERSBURG writes, "Our present members are all tried and true students. Most of them are self-supporting and with little time at their disposal. This fact has led the circle to dispense with formal programs and to have two members conduct the lesson each evening, thus securing as much as possible from the Readings."—The reorganizations of the month reported are the Valley Echo Circle of BEAVER FALLS, the BERWICK of twenty-eight members and in its sixth year, the EMLENTON, of fourteen, interested sufficiently to attempt filling out the twelve-page memoranda, the Emily Wheeler of BROWNSVILLE, thirteen ladies, the Earnest Workers of CATAWISSA, the Ennemomi Circle of LEWISBURGH, "no drones", the Aryan of LEHIGHTON, sixteen members, the SELIN'S GROVE, the WEST MIDDLETOWN, the Irving of YARDLEY, the WATERFORD, and the Leal Circle of LINESVILLE.

SOUTHERN CIRCLES.—The Pansy Circle of WASHINGTON,

D. C., is one of the loyal bands. As its name indicates it originated with the '87's and half of its membership now is of that blood. The programs of THE CHAUTAUQUAN form the basis of its work.—There are thirty members in the Carlisle of CAMBRIDGE, MARYLAND, rejoicing in the work and promising to send a large delegation to Chautauqua in '90. The Carlisle issues a circle paper, *The Conglomerate*.—The programs of the Bryant of BALTIMORE contain some excellent points as an address on technological training in the schools, American history treated by addresses twenty minutes in length, and illustrated lectures on physiological subjects.—Two other Maryland circles which are doing well are FREDERICK where the membership is rapidly increasing, now numbering twenty-one, and the DARLINGTON, numbering eighteen.—"We are in love with the Chautauqua work," writes the WHEELING, WEST VIRGINIA, Circle.—A sure sign that RICHMOND Circle, KENTUCKY, is making itself felt is its own remark, "More people talk about the Chautauqua reading in this town."—ASHLAND Circle, KENTUCKY, has seventeen members.—The Bryant of COVINGTON, KENTUCKY, is doing excellent work. It has thirty-five active members. In connection with the German circle it brought Mr. Peter Von Finklestein to the city before the holidays, and is preparing to conduct other lectures.—At AMERICUS and ATHENS, GEORGIA, the circles have reorganized.—From OPELITKA, ALABAMA, come answers to questions in the January number of THE CHAUTAUQUAN.—Interest waxes in LITTLE ROCK, ARKANSAS.—"Increased interest and zeal" is announced from SOUTH BOSQUE, TEXAS.—Ten members are in the Immortelles of BASTROP, TEXAS.

OHIO.—SPRINGFIELD is becoming a C. L. S. C. stronghold. The Worthington and Bushnell are prominent organizations, and now there is a new one, the Thirteen Circle, taking its name from its thirteen charter members who took this way of casting contempt on the popular superstition which follows that good number. The Thirteen celebrated Christmas in most approved fashion.—A long list of reorganizations come from Ohio, the WAVERLY, ALEXANDRIA, (eighteen members), Howells of BRIDGEPORT (twenty-eight members), Scovill Avenues of CLEVELAND, "a flourishing circle, full attendance, program well carried out," Ninth Street Baptist Church of CINCINNATI (thirty members), J. G. Holland of CRESTLINE (twenty members), CHILLICOTHE (sixteen members), DAMASCUS (six members), Alpha of FREMONT (twenty-five members), HILLSBORO, IRONTON, NEW LONDON, LITTLE HOCKING (ten members), Milton of MANSFIELD, Iota of MADISONVILLE (twenty-four members), Delphic of RICHWOOD (thirteen members), UPPER SANDUSKY, MAYFIELD, WESTON, WOOSTER (twenty-two members).

INDIANA.—The Round Table of WORTHINGTON declares that to say they enjoy the work very much is to express their real feelings but feebly.—At GOSPORT the circle has the disadvantages which come from living far apart, but in spite of all, it meets frequently around an open fire-place, asks the questions, discusses the readings, examines pictures, and reads choice bits.—The Beta and Pioneer circles of NEW ALBANY have united under the name of the latter. The circle has adopted the excellent plan of holding Vesper Services once a month in the different churches of the city.

MICHIGAN.—A commendable feature in the Melrose of MILFORD is the attention paid to current news. A member is appointed each week to select all important events of the week, from the different papers and read them at the next meeting.—Some fifteen to twenty "outsiders" regularly attend the meetings of the SOUTH BATTLE CREEK Circle

and not infrequently offer quotations at the roll-call of members and in various ways show interest. A number of boys and girls are also welcomed to the meetings. The critic is in an important personage in the circle's work.——The ranks of the Primrose of PAW PAW are full.——The Lunar of ORION numbers eight this year.——The LAMBSBURG (twenty-two members), OVERISEL, and St. Joseph Valley of NILES Circles report reorganization.——The membership of the Philomath of IMLAY CITY is more than doubled this year.——The Valley City of GRAND RAPIDS gives most of its time to the lessons and finds great help.——“Our interest never flags”——SOUTH WHITEFORD.——The CRYSTAL FALLS Circle numbers eleven very enthusiastic members and the prospect is for many more. They are determined to make the circle a success.——When the Winchell of DETROIT prepared for reorganization last fall, Garfield Day was chosen for the time for beginning work. A program was made out and invitations put in a local paper urging all to join. The result was a large addition. A mass meeting of all the city's circles has been called and Mr. J. M. Hall, the Michigan C. L. S. C. secretary, is to be present.——The Marathon of COLUMBIANVILLE closed last year with a picnic at Orion Lake and this year it has enlivened its severer labors with a holiday entertainment. Monthly reviews help fix their readings.——The AUGUSTA Circle writes that it recently joined the COMSTOCK and GALESBURG Circles at the last named place, and listened to a C. L. S. C. address from Secretary Hall.——A correspondent from EAST JORDAN writes, “We are to introduce a new feature, a spelling match on the least familiar words in the last month's reading.”——Reports come from Straight Circle of CARSON CITY (twenty members), from CEDAR SPRINGS, from CADILLAC (thirty-two members), from the Simpson of DETROIT (twenty-two members), and from ELSIE (nine members).

WISCONSIN.—The Grand Ave. of MILWAUKEE has thirteen members. This circle is one of the Milwaukee Union.——The RACINE Circle keeps up the record it has been making from year to year, of steadily increasing its membership. Its program committee is managed well; it is appointed monthly and each new body incorporates the best ideas of its predecessors, and all its own ingenuity can suggest, and avoids the errors of others. Available local talent is freely used.——The LAKE GENEVA has put its local membership at work, assigning them the articles in THE CHAUTAUQUAN for review.——Twenty-two members form EAU CLAIRE, now in its fourth year. A monthly exercise of the circle is to ask the *Questions and Answers* backward.——The Conference of BLACK RIVER FALLS is formed of fourteen persons, has an inspiring leader, and votes the work most beneficial.——The Haylett of OSHKOSH is prospering, fourteen members.——The circles at MAUSTON, FOX LAKE, LODI (Hurlbut), and STEVENS' POINT (Pioneer), are at work.

MINNESOTA.—Sixteen enrolled in the North Star of ST. PAUL.——The Oak Leaf, Alden, North Lyndale, and Vincent Circles report reorganization from MINNEAPOLIS.——RED WING's Circle is working hard.——The DOVER Circle finds itself with ten members this year, the OWATONNA with ten, and the Sunflower of WARSAW with seven.

IOWA.—The large circle at BLOOMFIELD is fortunate in having in its membership nearly all its graduates, and the secretary declares the work to be unusually interesting and the members to be inspired with a genuine Chautauqua spirit.——Not even a summer vacation is taken by the OSCEOLA. One summer Dante, another, “The Light of Asia”, and last, Stevenson's “Short Studies of Men and

Books” occupied them. Part of this circle are graduates of '83 and '84 and it contains some local members of several years' standing.——An informal questioning on the week's reading is the practice of the Hawkeye of EFWORTH. The questions are prepared by different members appointed the week previous.——CRESTON, WEST UNION, and the Philomathean of COON RAPIDS continue their organizations.

MISSOURI.—Two years ago there were only two circles in ST. LOUIS; in December *eleven* joined in a Vesper Service. There is also in the city a union and an association of graduates.——A rare feature is observable in the WARRENSBURGH Circle, it has more gentlemen than ladies on its roll. The Missouri Chautauqua Assembly is held at Warrensburg, and the circle derives large inspiration from the gatherings.——“No drones” in the Dundee of KANSAS CITY.——Proofs of thorough and enjoyable circle work come from APPLETON CITY, GRANT CITY, and NEOSHO.

KANSAS.—Hopeful reports come from the Inter-oceans of SALINA and from WELLSVILLE.——The Ascendants of INDEPENDENCE carried out the Milton exercises suggested in THE CHAUTAUQUAN, sending out a very pretty printed program.——There are thirty-two active members in GARDEN CITY, doing more thorough work than ever before.——“Small in numbers but great in work” is the word from MYERS VALLEY.——The indefatigable Grecian of PARSONS has made itself known to every man, woman, and child in the town. Thanksgiving Day an elaborate program was carried out. Robert J. Burdette has lectured for them, and now the Case Circle of OSWEGO is to visit the Grecian.——Milton Day was made the occasion of a grand union performance in TOPEKA, the Adams, Ninde, and Galaxy taking part. About three hundred persons, most of them members of one of the circles, were present. The Chautauqua salute took the place of applause.

NEBRASKA.—One of LINCOLN's established institutions is the Lincoln Circle. It numbers seventy-six members. The Capital City Circle has been formed recently with twenty-eight members.——The circle at FORT OMAHA enrolls a pastor, several teachers, and eight soldiers. Their plan of work is of the most approved style; they publish a weekly paper, the *Vidette*, and the interest is strong.——The Schiller of PLATTSBURGH is doing its second year with renewed energy.——Good work and interest at YORK, SURPRISE, OMAHA; HEBRON, COLUMBUS, and BEATRICE.

THE FAR WEST.—The circle is prospering at GOLDEN, COLORADO.——Good work is reported from NEWBERG, OREGON.——Three DAKOTA circles announce their prosperity, WOONSOCKET, CARTHAGE, and CROOK CITY.——The Altman of KETCHUM, IDAHO, has sixteen members, all doing good work.——Seventeen persons form the LIVINGSTON, MONTANA, Circle.——Mount Baker Circle of COUPEVILLE, WASHINGTON TERRITORY, still sustains the dignity of its name. Another circle in the same territory is the Olympiad of MONTESANO. “Deeds not words” is their excellent motto.——A delightful Bryant Day celebration was held by the Grant Circle of CALISTOGA of CALIFORNIA, and later Milton Day was observed with equal success. This circle is composed of seventeen energetic members.——The secretary of the Renascent Circle of OAKLAND writes these appreciative words: “The Chautauqua system of education takes a strong hold on our minds, and we are deeply interested in the studies. We have all been out of school a number of years and are glad of this opportunity of reviewing”.——SAN JUAN reports reorganization.——PETALUMA is the last stopping place in our March tour. It is a pleasant place to stop—a social, interested, ambitious circle.

THE C. L. S. C. CLASSES.

CLASS OF 1888.—"THE PLYMOUTH ROCK."

"Let us be seen by our deeds."

OFFICERS.

President—The Rev. A. E. Dunning, Boston, Mass.
Vice-Presidents—Prof. W. N. Ellis, Brooklyn, N. Y.; Miss Florence Hodges, Deadwood, Dakota; Miss Mary E. Scates, Evanston, Ill.; James M. Hunter, Barre, Ontario; the Rev. W. G. Roberts, Three Rivers, Michigan; Mrs. D. A. Cunningham, Wheeling, West Virginia; Mrs. D. A. Dodge, Adrian, Michigan.
Secretary—L. Kidder, Connelville, Pa.
Eastern Secretary—Miss C. E. Coffins, Brooklyn, N. Y.
Treasurer—The Rev. L. A. Stevens, Tonawanda, N. Y.
 Items for the class column should be sent to Wm. McKay, East Norwich, Long Island, N. Y.

Announcements concerning the '88 competitive examination at Chautauqua have already been made to the members of the class. Separate examination papers will be prepared on each book of the required course for the current year, each paper containing twenty-five questions. No person will be permitted to receive more than two prizes. A list of the prizes can be found in the February issue of THE CHAUTAUQUAN.

We hope that every member of '88 who expects to be present at Chautauqua will plan to take part in the examination. The study necessary for this examination will be of untold benefit. We only regret that the same opportunity which is offered to those who can be present at Chautauqua, can not be extended to all members of the class. The day for the examination will be arranged as near as possible to Recognition Day when the greatest number of members of the class will be present.

No '88 who reads the following letter ought to feel utterly disheartened, though obstacles fierce and grim rise up to thwart him in the accomplishment of his purpose. "Congratulate me! In spite of spinal disease, rheumatism, and other ills too numerous to mention, I have finished the course up to date and answered the memoranda. Better than that, I have succeeded in forming a circle of seven. Believing there is much in a name, we call our circle *Fidelis* and each one is to have the word pinned to her looking-glass—a gentle but constant reminder."

The secretary of a little band of '88's in Illinois writes, "It is a great pleasure to report the benefit to each member. As I look back I can see how great good has come to almost every one of us. I believe our study together has strengthened our spiritual natures, and in one or two instances the whole ideal of life is changed."

CLASS OF 1889.—"THE ARGONAUTS."

"Knowledge unused for the good of others is more vain than unused gold."

OFFICERS.

President—The Rev. C. C. Creegan, D.D., Syracuse, N. Y.
Vice-Presidents—The Rev. S. Mills Day, Honeoye, N. Y.; the Rev. J. H. McKee, Little Valley, N. Y.; the Rev. I. D. Steele, Jackson, Tenn.; Miss Genevieve M. Walton, Ypsilanti, Michigan; Mrs. Jennie R. Hawes, Mendota, Ill.; Mrs. J. A. Helmrich, Canton, Ohio; Miss Ella Smith, Meriden, Conn.; Miss Mary Clenahan, Cedar Rapids, Iowa; G. A. Brashear, Pittsburg, Pa.; the Rev. S. H. Day, Rhode Island.
Treasurer—The Rev. R. H. Bosworth, 230 Rodney Street, Brooklyn, N. Y.
Recording Secretary—Mrs. E. N. Lockwood, Ripon, Wis.
Corresponding Secretary—The Rev. H. C. Jennings, Faribault, Minn.

A "down east" member of '89, the only one left of five

who began the course, proposes to persevere to the end. Though heavily burdened with cares and often discouraged, she writes, "I begin to see a break in the clouds ahead. . . It is less interesting to read alone as there is so much more enthusiasm in numbers, but I need it and so try to keep on, even if I do get behind."

What most of us need is not more time, but more perseverance.

CLASS OF 1890.—"THE PIERIANS."

"Redeeming the Time."

OFFICERS.

President—The Rev. D. A. McClenahan, Allegheny, Pa.
Vice-Presidents—John Lee Draper, Providence, R. I.; the Rev. Leroy Stevens, Mount Pleasant, Pa.; Charles R. Weller, St. Louis, Mo.; Mrs. Dr. Edwards, Randolph, N. Y.; Miss Anna L. Sanderson, Toronto, Canada; George H. Iott, Chicago, Ill.; A. T. Freye, Crestline, Ohio; Miss Helen Chenault, Ft. Scott, Kan.; S. M. Delano, New Orleans, La.; Miss Sarah Young, Danville, Ky.
Eastern Secretary—Mrs. Ada O. Krepps, Brownsville, Pa.
Western Secretary—The Rev. H. B. Waterman, Griggsville, Ill.
Treasurer—Mrs. E. P. Wood, 252 General Taylor Street, New Orleans, La.
 Items for this column should be sent to the Rev. H. B. Waterman, Griggsville, Ill.

Here is a '90 whose faith in our Class motto evidently admits of works also, for he writes, "I am trying to get up an interest in the C. L. S. C. in this neighborhood. I am talking for it, writing for it, riding for it, and paying out money for it—what more can I do?"

Not even a name sacred to the Muses, nor a motto full of inspiration can hold twenty-five thousand people to the steady fulfillment of one purpose, unless each individual be also upheld by a perseverance which will not be dismayed however formidable may seem the difficulties which beset him. We begin to fear that some of our Pierians are just now suffering for a little exercise of that often abused muscle—the human will; for the records of the Plainfield Office show that a large number of the class have thus far been silent as to their plans for the present year.

CLASS OF 1891.

OFFICERS.

President—The Rev. J. M. Durrell, Lawrence, Massachusetts.
Vice-Presidents—Mrs. Mary A. Livermore, Melrose, Massachusetts; Professor Dutche, Missouri; Mrs. Mary T. Lathrop, Michigan.
Secretary—Chas. E. Colston, Hannibal, Missouri.
Treasurer—Frederick Holford, Springfield, Ohio.

The number of new circles reported this year is almost two hundred greater than that reported at the corresponding time last year. Evidently '91 is determined to do thorough work, but as the "greatest good to the greatest number" is one of the chief ends of the C. L. S. C., let us still aim to lead in numbers as well as in the quality of our work.

Among recent enrollments of foreign names in the Class of '91 are two names from China, one from Japan, five from Honolulu, and four from central India. Letters have also been received from New Zealand and from the western coast of Africa; these last two correspondents will probably join the Class of '92, as their great distance from the publishers will not enable them to get the books in time to take up the reading for this year.

EDITOR'S OUTLOOK.

INTERNATIONAL EXPOSITIONS.

Congress has been deliberating over two important invitations this winter. The first came from the British Government, to participate in the International Exhibition at Melbourne, Australia, in honor of the founding of New South Wales; the second from France, and requested the pleasure of America's company at the Paris exhibition to be held in 1889, to commemorate the taking of the Bastille. Now the source of each is quite irreproachable, and the occasions, too, are thoroughly in harmony with American tastes; the one celebrates push and wealth and development; the other, the birth of republican principles on monarchical soil,—a celebration in which it is said every monarchical government of Europe has refused to participate, and at which if the United States consents, every republican government has promised to be present. But even if the source of an invitation is irreproachable and the occasion brilliant, there is still much to be considered before accepting in the case of so hard-worked a self-supporter as America.

Probably the first question is the cost. Can it be afforded? The least amount to be thought of for the Melbourne visit is fifty thousand dollars. America must appear well in the company which will be gathered there. Better stay at home than go and create an impression that her fame is an air-bubble. To go to Paris two hundred thousand dollars is thought necessary. Not that Paris is four times as far away as Melbourne, or that France is four times as large as Australia, or that we admire her four times as much, but on the principle that the gown which is made for the dinner-party of an old, cultured, and dinner-giving family must be finer than that for the party of a new-comer into social life, unused to entertaining. Neither sum is large. Certainly we can afford it. But unless there is some advantage to be gained from the visits, it will be difficult to get any thing but polite "regrets" from Congress.

What is the good of participating in foreign expositions? When Mr. William Walter Phelps spoke to the House recently, urging the Melbourne appropriation, he said that in five years the commerce between the United States and Australia had increased from five million to twelve million dollars, and declared that the result was due mainly to what the two countries had learned of each other five years ago at the Melbourne International Exposition. Whenever America has taken part in industrial displays and world's fairs the commercial result invariably has been similar to that which Mr. Phelps cites. Indeed such representations of her inventions, resources, and skill, have proved the most profitable advertising she ever has done.

Socially, too, we have something to gain from this kind of intercourse. Deputies of America can not be entertained in a country—and behave themselves—without binding that country a little closer. Mutual interest in each other's ideas, activities, and ambitions, will be aroused; a conception of the possible benefit to each country from freer intercourse will be stimulated; and these thoughts awakened in a few official minds will grow on both soils and make haggling, and discourtesy, and war less probable. Every foreign official who went home from the Centennial Exposition to tell of America, awakened friendly interest in numbers of his countrymen, and thus it is to that great show that we owe the recent large increase of foreign travelers.

The most far-reaching effect of all is the educational. Nations are very like individuals. The educational laws which govern the one aptly apply to the other. Contact with foreign customs, ideas, art, broadens, humanizes, and refines the individual mind. It does the same for a nation. We are richer in taste, in manners, in skill, and in *humility*, because of the times we have sent representatives abroad to expositions and because of those who have come to our celebrations. Is America a trifle given to

thinking that she monopolizes progress and art and money-making, that nature has given her a copyright on "natural resources", and that what she does not do is not worth doing? Let her go to Melbourne and learn afresh that Australia, too, is vast and rich and progressive. Is she still slightly boorish in her manners, doubtful about the usefulness of unfailing politeness, and appreciative only of the commercial side of art? The French exposition will polish her no little. She has profited largely already from her contact with other civilizations; it will be wise to permit her to improve her opportunities to continue her education. So we say for the sake of commerce, of friendly feeling, and of personal improvement, let her accept the invitation to Melbourne and Paris.

ART ON TRIAL.

In any mention of current movements in behalf of moral reform, the name of Anthony Comstock should always receive grateful recognition; for it is hardly possible to overestimate the value of the services which he has rendered to the New York Society for the Suppression of Vice. But earnestness of purpose is of itself no safeguard against unwisdom in action, and not a few of the earnest friends of the society, among whom we count ourselves, have some fears lest the faithful and unwearied champion of virtue may at present be making an unwise departure from the safe path hitherto followed by him. After our full expression of sympathy with the work in which he is engaged, what we have further to say, even though it may seem to savor somewhat of criticism, may rightly claim to be received as friendly hint and not as hostile judgment. Friends fear lest he may have occasion to repeat the words of the psalmist, "The zeal of thine house hath eaten me up."

It is to be hoped that it was from dearth of other occupation, consequent upon the effectiveness of its previous efforts, that the Society was led to think of prosecuting certain respectable dealers in works of art, on the plea that they were offering for sale photographic reproductions of French paintings which were calculated to corrupt the morals of the community. In the case which has been brought most prominently to the notice of the public, the photographs complained of were copies of works exhibited in the Paris *salon*—the great annual exhibition of modern French art. In the absence of any knowledge as to the actual character of the objectionable prints, the suggestions which we have to offer must be of a general character and subject to any limitations which might be demanded by a more exact acquaintance with the actual facts.

Two points will hardly be disputed,—first, that no work admitted to the Paris *salon* is ever of an avowedly immoral character, and, secondly, that the American dealers who have been complained of are not open to the charge of having intended to pander to a corrupt taste by offering to the public works recognized as indecent. The recent prosecutions have not charged evil intent upon the dealers, but only ascribed evil tendency to the works. Now, assuming that the pictures in question are actually corrupting to an extent which renders them liable to seizure and destruction, no owner or dealer certainly has any ground for complaint when the law takes its course. His loss is a misfortune for which he has nothing to blame but his own ignorance of the bearing of the law. But a more intricate if not more important question remains. The law authorizes any twelve men whom chance has brought together in a jury-box, to decide upon the character of any work of art which has been libeled as subversive of morality. Is such a jury likely to be really competent to the performance of the task assigned it? The law is at best but a coarse tool which the average jurymen handles very clumsily, even when he works under the eye of a

competent judge. He who owns a piece of delicate mechanism, say a valuable watch, does not ask the blacksmith to regulate it with his huge iron tongs.

It is not strange that Mr. Comstock does not appreciate the anomaly of his position. Knowing little or nothing about art, he does not know how false is his claim that any man is competent to sit in judgment upon the moral character of a painting or a statue. In scoffing at the protest of the thirty artists, some of them of more than local fame, who saw, in his new crusade, danger to the interests of American art, he took a course calculated to alienate those whose personal and professional character entitled their judgment to at least respectful consideration. If lovers and patrons of art, too, are not to lose their confidence in the management of an engine of reform whose period of usefulness they had hoped was far from being past, those who are in a position to give advice may well urge that the judgment of the competent shall be sought before the verdict of the law is demanded in condemnation of what may be evil only to "him who evil thinks".

WHY DO MEN FAIL IN BUSINESS?

There were in the United States on the first of January 1880, about 600,000 business houses, firms, and corporations. In January last it was estimated that these business concerns had increased to 1,000,000. This increase in seven years is greater than the actual increase in the population of the country. That is, there are more people doing business now than then, more men and women at work earning or gaining money, a less number idle or out of business. Of all the concerns in active business in any one year, a certain proportion fail. That is, they are obliged to stop, because unable to pay their debts. These are the pure failures as distinguished from the simple stoppages of business, by death or from changes in the demand or supply of goods. For instance, a firm may manufacture artificial flowers when, from some inscrutable reason known only to women, every shopper in the land refuses flowers and demands dead birds for hat trimmings. The flower-maker does not fail—he simply stops. Through no fault of his own he must wind up and go out of the flower business.

For the last four years the number of failures in the United States has steadily declined, from 11,620 in '84 to 9,740 in '87. In 1884 the total liabilities were \$248,740,000, while the assets were \$134,620,000. In 1887 the liabilities were \$130,505,000, with assets of \$64,651,000. *Bradstreets* for the last week of 1887, in discussing these figures, takes a hopeful view of the business situation, for while the proportion of assets to liabilities is 49.50 per cent in '87 and 54 per cent in '84, there are undoubted signs of improvement; the actual death-rate of business houses decreasing in proportion to the number in the last seven years. From '81 to '84 the number of failures increased. Since '84 they have decreased, while both firms and population increased, the firms increasing faster than the people, since '81.

In discussing the causes of failures, two things have to be considered: stoppages and winding up from death or other causes over which the houses have no control are not failures. A failure is a complete inability to pay debts when due. A change in the laws of the country or of other countries, a failure of a crop in any country, the introduction of new materials (such as the discovery of aniline that destroyed the business of making many vegetable dyes), fire, flood, or climatic changes, or a change in the fashion, may make it impossible for a firm to pay its debts, and it fails through no fault of its own. On the other hand, if these causes leave the house in a position to pay, it is not a failure, but a stoppage. These causes of failure are impersonal and objective. The other causes of failure are personal and subjective. They are ignorance or incompetence, mismanagement or fraud. To these another has been suggested, called "dry-rot". By this is meant a clinging to old or inefficient methods of doing business, unwillingness to advertise, disinclination to keep

up with the procession in the grand march of scientific and commercial improvement.

No man, no house, or corporation can control the laws of nature as they affect crops, transportation, or the needs of men. The ship may sink, the factory burn, and if failure follows, it is an honorable failure; in other words it is a stoppage implying no dishonor. Laws by stupid legislators, and legislators can be stupid, may bring ruin. The laws of fashion may close the doors. Wild, unreasoning fear, called a panic, may come and failures follow fast. These things can not be controlled. The personal causes are the ones which firms can regulate. Ignorance and wrong are the roots of evil (not innocent money as some have thought). These two, and it may be a question if they are not one—ignorance—may be controlled.

Not to fail in business (and in life too) means not to be ignorant of the "eternal verities," the great truths,—sobriety, industry, prudence, caution, courage, right doing. Ignorance may succeed for a time. Even fraud may thrive. In the end these are the seeds of failure. This is the lesson of dry statistics; but seeds are always dry till in some ground they find the conditions of life, when they grow; whether the seed be a thistle or a selfish thought in the heart of a business house, the end is a weed or a failure.

GULL-CATCHERS.

Data concerning the characteristics and habits of the natural order of gull-catchers increase, and afford to students of social science, ample opportunity for scientific research and classification. The details of a few of the transactions of a Mrs. Hendricks of Philadelphia furnished news to the January prints, and showed how with ease and dispatch this accomplished fowler had trapped numbers of fine, plump birds, each of which brought her from one to fifteen thousand dollars. Side by side with these pretty operations was told the story of a Pittsburgh man of wealth and business experience, gracefully yielding ten thousand dollars to bunco-men. Mrs. Hall and her profitable banking business conducted in New England for the benefit of women, and so ruthlessly broken up a year ago, is still fresh in mind. None of us have forgotten the British American Claim Agency which undertook the philanthropic enterprise of collecting claims lying in the Bank of England, for American heirs. To be sure no heirs ever have been found who received the supposed fortunes, and many have testified to giving the Agency round sums for investigations but we must remember that the enterprise was hurried to an untimely end, and that if given a few more years it *might* have secured the claims.

Nor have the gull-catchers confined themselves to commercial transactions. Socially they have attained enviable prominence, securing an *entrée*, almost at will, into exclusive, wealthy, literary, or official society. Northern New Jersey has not forgotten the scion of English nobility, who a few months since ate at her most splendid boards and paid court to her most beautiful dames. Many a town of the interior holds in memory a government official of wide travel and astonishing geological information, who a year ago under one name or another, courted its daughters and its ducats. Indeed, as we count the successes of the energetic swindler, we must rank his business as one of the most prosperous in the country. A trust seems to be the only thing lacking to make of him one of our most gigantic developments.

The extent and activity of this order is such that we are surprised that the scientific law-maker has given so little attention to making a complete classification. We are satisfied that there are several species familiar in society, resembling in structure the common gull-catcher, which either remain unclassified or are commonly known under another name. For example the numbers of those profitable and popular combinations known as "pork rings," "oil rings," "wheat rings," and the like, whose skillful manipulations succeed so admirably in filling their own pockets and emptying those of the gulls; the stalwart monopo-

list who so adroitly drops all rival concerns into a vacuum and appropriates the available breathing space to himself; the watered-stock man; the Henry Ives family; the speculator in "paper towns"; the agents of California, Texas, and Florida booms; the maker of "corners"; certainly all these are defrauded of their proper place in the scientific classification of society, if we loosely persist in calling them legitimate traders instead of gull-catchers.

It is interesting to look for the cause of the thrift and number of this order. We shall find it in the abundance of the gulls. Certainly if there was no game, it would not pay to set the trap. But the game is plentiful. Indeed the marvelous rapidity of increase in gulls is equaled only by the rabbit multiplication of Australia. The scientific minds look at once for a reason for this fertility. We do not hesitate to attribute it, on its commercial side, to the progressive and stimulating business methods of the times. Speculation is financial king. A, B, and C, in every town have made fortunes in a night; A in stocks, B in land, C "on the market". What has been done can be done, cries the gull, and Mrs. Hall, or the bunco-man, or the boom agent secures a bird—and a golden egg. Six per cent,

a salary, legitimate trade, fair wages, are not for such times as these.

Socially, too, the origin of the gull is obvious. The social atmosphere is charged with toadyism. It affects all who breathe it, with reverence for titles, fat pocket-books, and great reputations. When a possible count, or captain, or bonanza king is to be captured, why look deeper than the visiting card? To hesitate is to lose him, and off comes the hat. What becomes society more than honoring the great who honor it?

The perpetuity of an order is always a question of interest. How long shall we have the gull and his catcher? So long as the former is totally deficient in the power of observation. It is singular that this bump should be so small on the gull cranium, yet it is a fact. Here is a bird trapped and relieved of thousands of dollars; yet if the next day the decoy is cast at an observer's door, it will find him as ready to snap it up as was his neighbor. Mrs. Hendricks is not a cent out of pocket because of Mrs. Hall, and southern New Jersey will entertain next winter, not improbably, the "count" who this season entrapped the northern half of the state. It takes experience to make an owl of a gull; observation will not do it.

EDITOR'S NOTE-BOOK.

THE CHAUTAUQUAN has suffered a serious loss. Mr. Jerry Foley who had been our pressman from the first issue of the magazine till January 1888, died Jan. 27. He began life as an office boy in a printing establishment. By his ingenuity, brightness, and industry he grew in favor with his employers and earned an honorable position in his craft. He was a young man of good habits, who educated himself by reading and intelligent inquiry of experienced workmen, for the useful and responsible position he filled. He took an honest pride in his work, and was content to excel in his own chosen sphere. He was twenty-six years of age; a single man, but would probably have been married soon to an estimable young lady. He left an aged father and mother whom he had supported for several years. The funeral service was held in the Roman Catholic Church of which he was a member. A vast concourse of people came, but only a part of them could be accommodated in the great building. He was a useful, honorable, and very popular young man.

The complexion of President Cleveland's cabinet was greatly changed in January. Mr. Lamar retired and is now a judge in the Supreme Court. Mr. Vilas has been transferred from the Secretaryship of the Post-Office Department to be Secretary of the Interior. We have Mr. Dickinson of Michigan as Post-Master-General. This is the most powerful political office in the Cabinet. Since Mr. Manning retired from the Treasury Department it has been common talk that there was no great politician in the President's official family. In this particular Mr. Dickinson is strong; he has made a brilliant reputation as a political manager, and though heretofore unknown in public office, he now has a large field in which to exercise his gifts, both in the service of the government and for the success of his party.

Why should there not be some classification of the bills to be introduced to Congress, and those of a kind presented together? The month of Congress following the holiday recess showed daily enough varying subjects for legislation to make the public head swim. The never-ending pension bills, claims of all sizes, hues, and forms, requests for public buildings and public works, tariff schemes, land laws, army and navy matters, foreign affairs,—all were hurriedly trundled in, as fast as their guardians could get them before Senate and House. The meth-

od confuses the public and the legislators. Among so many things so jumbled together, the wonder is that we get any thing.

The House Committee on manufactures has an interesting inquiry on its hands. It is an investigation into the names, number, extent, and methods of "trusts" and pools. The popular belief is that these combinations are made for controlling the production and supply of a commodity, and so of putting up the price; naturally public sentiment is against them. If the trust has any thing to say for itself, now is its chance. There are enough of them to make a good showing; a recent list includes oil, cattle, iron, cotton seed oil, sugar, paper bags, anthracite coal, coke, matches, envelopes, stoves, electric light, rubber goods, gas, street cars, and copper.

"The most humane and practicable method of carrying into effect the sentence of death in capital cases" has been under consideration by a commission from the New York State Legislature. The commission voices public feeling thoroughly when it recommends electricity as a substitute for hanging. A sensible side remark of the commission is that public funerals over the bodies of criminals should be forbidden. Public feeling again is in harmony with this opinion. The funeral of the anarchists in Chicago last winter pretty thoroughly convinced everybody of the mistake of allowing public demonstrations in the case of criminals.

It is not entirely sentimental considerations which have induced the Senate to pass the amendment to the Constitution, changing Inauguration Day from March 4 to April 30. Undoubtedly the fact that Washington took the oath on that day as first president of the United States had no little to do with it; but there is another and more practical consideration. The Inauguration services are almost invariably half spoiled by March weather, and many guests are kept at home for the same reason. April 30 would be the most charming time of the Washington year. It is a sufficient reason, though it is probable that it will take some time for the twenty-seven state legislatures necessary to ratify the amendment, to be so convinced. Senator Hoar with whom this bill originated has proposed also to change the time of the meeting of the long session of Congress to the first Monday in October, and of the short session to the second Monday in November.

A pleasant relief to the confusion of bills and smoke of wrangles which characterizes an ordinary day in the House of Representatives occurred in January. It was the time given to receiving and accepting a gift from Massachusetts. The Bay State has had four speakers of the House, those of the VIth, Xth and XIth, XXXIVth, and XXXth Congresses. Several years ago a portrait of the last, Robert C. Winthrop, was presented to the House. Now the state gives fine portraits of the other three. It was a graceful act kindly done and kindly received.

For several months occasional rumors have appeared concerning the growth of a scheme for the colonization of negroes in South America. The plans seem now to have come to a focus. The Central and South American Emigration Society has been incorporated, reports have been received from agents sent to different points, concerning the climate, soil, and the reception the governments would accord the colonies; some 300,000 negroes, it is said, have promised to emigrate; and it is announced that the first colony will go to the Argentine Republic in the early summer. The society is under the control of zealous colored men, anxious for the best good of their race; but good intentions, and bright colored plans never yet have made colonies successes. It is to be hoped that the officers in the present instance will fully pave the way before taking out emigrants, and will be wise enough to begin with small numbers. Any other course will result in suffering and discouragement, and a not improbable abandonment of the scheme.

A strong argument for government control of the telegraph is the service it will render the press. It rarely has been possible for the daily "country" newspapers to afford to pay the rates charged for telegraphic reports of news. They are obliged to "clip" their items or use plates, giving the news from twenty-four to thirty-six hours later than if they had the benefit of the wires. Senator Cullom who is fathering this bill in Congress, claims that 'no greater boon could be conferred upon the millions of people who live remote from the larger cities, than to enable them to procure the news of the day promptly and fully.'

The competition of convict labor causes more scares than harm. As a matter of fact the total product of prison labor in this country amounts to just one-half of one per cent of the total product of free labor, not enough to injure anybody, a reasonable mind would think. Nor does it, except rarely when a local industry is thrown into competition with a large product from a neighboring penitentiary. In spite of the small percentage of competition, the sentiment of laborers is so strong against prison work that the authorities are driven often to their wits' end to find employments which will not be obnoxious. The superintendent in one New York State institution in trying to escape trouble has set his men to making sugar and tobacco pails for the South, and one prisoner is allowed to make banjos.

The pugilists in endeavoring to recommend their business to the sympathy of order-loving people have claimed that it was an educator of courage. Col. T. W. Higginson gives his opinion on this point in a capital illustration: "If I were recruiting a company or a regiment, as in 1862, I should rather enlist ten sober, steady young men from Mr. Baldwin's Christian Union or Father Scully's Gymnasium than twenty professional pugilists; and any man of actual experience would say the same."

The necessity of irrigation in order to reap the benefits of California soil and climate has led to some stupendous engineering feats. One is the Great Bear Valley Dam near Los Angeles, which forms a lake covering 4,000 acres and furnishing water to 50,000 acres of land. Another opened recently is the

Merced Canal by which nearly 500 square miles of land in the San Joaquin Valley is to be watered. This canal has cost a million and half of dollars and five years of time. Extraordinary difficulties in the way of excavating, tunneling, and damming, have been overcome in its construction. The extent of these undertakings necessary to make the land profitable, may be suggestive to people who are laboring under the delusion that if they could but get to California and secure a tract of land, their fortunes would be made.

Few specialists go to their graves so widely known and sincerely mourned as the great botanist, Dr. Asa Gray. His life of nearly seventy-eight years was spent in the most devoted and indefatigable botanical research—work which placed him at the head of this science in America and won him honor in Europe. His great knowledge was distributed through every channel open to him,—teaching, speaking, writing, and editing. As a man he was famous for his lovable nature and cheery manner. Dr. Gray was, as he said, "scientifically, and, in my own fashion, a Darwinian, philosophically a convinced theist, and religiously an acceptor of the 'creed commonly known as the Nicene' as the exponent of the Christian faith."

Dr. Coan in his article on "The Hypnotic Sleep", in this number of THE CHAUTAUQUAN, drops a word worth thinking over, when he says, "It is not a thing for charlatans or even for private amateur experimenters. Let us leave the investigation of hypnotism, or the mesmeric sleep, to the skilled and conscientious care of men like Charcot and his co-laborers in scientific research." The amateur experimenters do witlessly even more harm than the charlatans. The mysterious effects they are able to produce fill their own minds and those of observers with unrest, stir up foolish and unfounded theories, and often result in the wildest conclusions. Unscientific trials of hypnotism and mesmerism are even more dangerous than such experimentation with electricity would be; for their effects are mental and spiritual, the latter only physical.

A new and not improbable theory for color-blindness is advanced. It claims that the failure to distinguish colors is due to careless observation; that if we would, we could tell colors. The theory lacks the support of any striking cases of confirmation as yet, but it appeals to individual experience. There is no question but that by practice and effort, dexterity in distinguishing shades can be acquired. Is it not possible to educate one's self to overcome color-blindness? Persons supposing themselves color-blind can render a service to science, as well as to themselves, if they can prove that by attention they can learn "to tell blue from green".

The present spring will undoubtedly see an unusual amount of tree-planting. Arbor Day will be observed in many states; the public conscience is alive in some localities at least, to the havoc that is making in our forests, and while waiting for the legislatures, will ease itself with planting lawns and groves and lining the streets. That those of our readers who are interested in tree culture may know how to do their planting scientifically, we have secured from Mr. B. E. Fernow, the head of the Forestry Division of the Agricultural Department at Washington, a practical article on tree planting. It appears in this issue and will, we believe, be found of wide usefulness.

Those who have been watching Charles Dickens' tour through the country must be impressed with one fact, his industry. In this he is like his father who never shrank from any task whether of reporting, writing, traveling, or reading. Mr. Dickens gave over seventy readings the first three months he was in the United States, never breaking an appointment or missing a train.

Lord Byron's centenary was celebrated on January 22 and the most striking features of the occasion were the little interest it excited and the number of reasons produced for the decline of Byron and Byronism. At Byron's death, Walter Scott declared that it seemed almost as if the sun in the heavens had been extinguished; there was no evidence on his centenary that anybody felt it even clouded. The reason is obvious: no man can live an uncontrolled, selfish life of license, though he do it in the most picturesque manner and dash it with noble deeds and entrancing songs, without ultimately losing the wide and hearty admiration and following of posterity.

"Mix your sage ruminations with glimpses of folly,
'Tis delightful at times to be somewhat insane."

So thought the Philadelphians who in January made merry with a night of the most grotesque mummeries, yet conducted in such order and good humor that it was voted a benediction to the city. St. Paul mixing not only "glimpses of folly" but a large amount of shrewdness and business enterprise with her "sage ruminations", held a carnival lasting ten days and including about every form of winter sport known to the world and certainly to carnivals. She has had her fun, but better still she has given a large amount of work to her people and has attracted the attention of the whole country.

The Rev. T. De Witt Talmage said lately that the syndicate having charge of the publication of his sermons in the secular press, informed him that every week 13,600,000 copies were published in America and about 4,000,000 in other lands. Mr. Talmage is a safe teacher for this tremendous audience. Socially as well as religiously he gives sound doctrine, as witness this: "The accomplishments of life are in no wise productive of effeminacy

or enervation. Good manners and a respect for the tastes of others are indispensable. The Good Book speaks favorably of those who are a 'peculiar' people; but that does not sanction the behavior of queer people. There is no excuse under any circumstances for not being and acting the lady or gentleman. Rudeness is sin. . . . As Christianity advances there will be better apparel, higher styles of architecture, more exquisite adornments, sweeter music, grander pictures, more correct behavior, and more thorough ladies and gentlemen."

American architecture has a judicious and stimulating friend in the Architectural League of New York. The League is young but its aims—to inspire its members and develop public interest in architecture—are faithfully held to, and the exhibition of the present season shows that much has been accomplished. We are building each year in America more buildings really adapted to the uses for which they are designed and true in style to artistic principles. This means that we are growing architects of sense, education, and skill. Wherever an important building is to go up, it will pay its owners to secure a good architect.

The April issue of this magazine will contain a list of the graduates in the Class of 1887 of the Chautauqua Literary and Scientific Circle. The names of nearly five thousand persons will appear. To accommodate this large number we shall be obliged to ask our friends interested in the *C. L. S. C. Classes* and the *Local Circles* to be lenient with us if we find it necessary to crowd them into a smaller space than usual. Five thousand names can not be put into a corner. We are sure that the current workers will be willing to sacrifice a little in April in order to know who are the successful '87's.

C. L. S. C. NOTES ON REQUIRED READINGS FOR MARCH.

PHYSIOLOGY AND HYGIENE.

P. 257. "Fakir." The word is derived from the Arabic, and meant originally, a poor man. It is now the name of a mendicant order in the East Indies. Fakirs are in the habit of inflicting severe suffering upon themselves. Many assume certain positions—such as bending forward until the body is in the form of a right angle, or holding up one or both arms—and so remain without moving, until at last they become permanently fixed and unable to change. They submit to all kinds of degradation, and always go hungry and scantily clothed.

P. 259. "Intercostal." The term is derived from two Latin words meaning between and rib; hence the intercostal muscles are those lying between the ribs.

P. 260. "Biceps." The name given to the great flexor (bending) muscle of the forearm. It is derived from two Latin words, which mean two and head. It is so called from the fact that it has two sources or heads.

"Pectoral." Pertaining to the breast.

"Triceps." The great extensor (straightening) muscle of the forearm, so-called because it rises from three heads, two from the humerus (the large bone in the arm between the shoulder and the elbow) and one from the scapula (the shoulder blade). The triceps is the antagonist of the biceps.

P. 262. "Lacrosse." A game played originally by the Indians. It requires a comparatively smooth ground at least two hundred yards in length and eighty yards in width. The goals, two in number, are situated midway across the ends of the grounds, a few feet inside of the boundary line, and are each marked by two flags six feet high and placed six feet apart. Every time a ball passes into the goal between these flags, going under and not over, a game is scored. The ball is of solid India rubber, about nine inches in circumference, and the bat, called

the crosse, is somewhat similar to the racquet used in lawn tennis. There should be twelve players on each side, one from each of them to protect the goal. The ball can not be touched by the hand, but must be managed entirely with bat.

"Polo." This game originated in India, where it was held in great favor by the officers. It is a ball game played on horseback. The grounds should be at least one hundred twenty by seventy yards. In the middle and at both ends of the grounds are the goals, as at football, and the game is, as in lacrosse, to drive the ball between the posts of the adversary's goal. The ball is struck with a long club which the rider holds in his right hand, while he guides his horse with his left. There are generally eight players on a side.

P. 270. "An-thro-pom'e-try." A term derived from two Greek words meaning man and measure; hence its definition, "the measurement of the dimensions or proportions in man".

P. 274. "Spi-rom'e-ter." A term compounded from the Latin word meaning to breathe, and the Greek word for measure. "An instrument for measuring the vital capacity of the lungs, or the quantity of air that an individual can expire after a forced inspiration."

THE PLAN OF SALVATION.

P. 124. "Porch and Academy." See *C. L. S. C. Notes* on Sunday Readings of the present number of THE CHAUTAUQUAN.

P. 126. "Pliny," the Younger. (61-113?). A Latin author and orator. In a letter which he wrote to Trajan, the Roman emperor (52-117), he spoke in high terms of the morality of the Christians, and asked directions regarding the manner in which they should be treated. Notwithstanding this he enforced a law which condemned to death all who would not renounce their faith in Christ.

P. 134. "*Dulia*." A Latin word which is derived from the Greek term meaning slave, and which is applied to the worship of inferior beings, such as saints. The word distinguishing the worship of the Supreme Being is *latría*.

"Juggernaut." Another name for the Hindoo god Krishna, whose temple is in Orissa, a province of Bengal, India. A chariot 43½ feet high and 34½ feet square, mounted on 16 wheels each 6½ feet in diameter, carries the god on great festival days from one place to another. It is drawn by long ropes held by the faithful of both sexes and all ages. Until within a few years it was a customary thing for some of the most devoted to throw themselves before the car, which passing over their bodies, would crush them to death.

P. 163. "Minerva." The goddess of wisdom. It is related that at one time Jupiter felt a violent pain in his head and in his agony requested Vulcan to "cleave the head open with an ax". This being done, Minerva sprang forth with a war shout and in full armor. She was worshiped also as the goddess of defensive warfare, and placed herself as an opponent to the savage Mars. She took part in the discussions of the gods and gave counsel even to her father. The Athenians held her as their national divinity, and erected to her on the Acropolis of Athens, the Parthenon, a magnificent temple, containing the celebrated statue of the goddess, executed by Phidias.

"Di-o-me'des." A famous Grecian hero in the siege of Troy, who next after Achilles is ranked the bravest of all the Greeks. The event referred to in the text is related in the fifth book of the *Iliad*. Diomedes had been wounded in battle by an arrow shot by Pandarus; the goddess Minerva healed him, after which she spoke these words:

"Yet more, from mortal mists I purge thy eyes,
And set to view the warring deities.

These see thou shun, through all the embattled plain,
Nor rashly strive where human force is vain."

—Pope's Translation.

P. 165. "Clemens of Alexandria" (—220 A. D.?). More commonly written Clement of Alexandria. A distinguished Father of the Christian Church. To escape persecution he left Alexandria and went to Syria where he preached in Antioch and other cities. See the *C. L. S. C. Notes* in the December issue of *THE CHAUTAUQUAN*.

"M. Minucius Felix." An early Christian writer, probably a native of Africa, who lived in the third century. The famous work of his, written in defense of Christianity, was entitled "Octavius".

P. 183. "Zaleucus." Correctly written Za-leu'cus. The celebrated lawgiver of the Western Locri, a Greek colony in southern Italy. He is supposed to have lived in the seventh century B. C. He was the first one of the Greeks who prepared a code of written laws. They were extremely rigorous, and it is said that whoever proposed a new law was compelled to appear with a rope around his neck, and if his proposition was not esteemed worthy of acceptance, he was immediately put to death. There are different accounts given of the manner in which Zaleucus died, some asserting that he fell in battle; others that he committed suicide, having thoughtlessly broken one of his own laws.

P. 211. "Permit me to write the ballads," etc. This expression is to be found in a letter written by Andrew Fletcher of Saltoun (1653-1716), to the Marquis of Montrose. He however ascribes the saying to "a very wise man".

P. 212. "Erasmus," Desiderius. (1465-1536.) A renowned Dutch philosopher. He was the son of Gerard Praet, and himself received the name Gerard, which he changed to Desiderius, its Latin synonym, and afterward added the Greek translation, Erasmus, as the surname. After resisting for a long time the wishes of his friends that he should prepare for the priesthood, he finally yielded and entered a convent. Here he gained great reputation as a classical scholar. He supported himself by taking scholars, among whom was a young English nobleman,

William Blount, who offered him a pension if he would go to reside at London. He accepted the offer and spent several years there. Among other works he wrote the "Praise of Folly", a satire against the mendicant monks. This and other writings against the corruptions of the Roman Church helped the cause of the Reformation. He was quite friendly to the Protestants, but, offended at the radical course of Luther, he never openly espoused their cause.

P. 235. "Socinian system." The doctrines of the religious belief promulgated by Socinus (1539-1604), an eminent Italian theologian. He rejected the doctrines of predestination, atonement, and original sin.

P. 238. "Carvosso," William. (1750-1834.) A lay Methodist. "He was born in Cornwall, England, and bred on a farm. In his youth he fell into the prevalent sins of the time, such as cock-fighting and Sabbath breaking, but in 1771 he was converted after a severe mental struggle. In 1774 he became a class-leader in the Wesleyan Church, and held that useful office for sixty years. His whole life was a wonderful illustration of the power of Christian faith, and his visits, prayers, and exhortations were the means of hundreds of conversions."—*McClintock and Strong's "Cyclopedia of Biblical Theology"*.

"Thomas à Kempis." (1380-1471.) A German ascetic writer, author of "*De Imitatione Christi*," which "sent his name to the remotest corners of the earth". It has been translated into all languages which possess any literature; next to the Bible it is, perhaps, in Christian literature the book most read.

"*Frequens Christi visitatio*," etc. The frequent communion of Christ with the inner man, sweet converse, pleasing consolation, deep peace.

P. 253. "Colton," Charles Caleb. (1780-1832.) An English author, a graduate of Cambridge, and vicar of Kew and Petersham. His wild habits of life soon brought him into disgrace and he fled to America. Afterwards he went to Paris where he committed suicide. He was the author of several works, among which the most popular was "*Lacon*", a collection of ethical aphorisms.

CLASSIC GERMAN COURSE IN ENGLISH.

P. 8. "Her-me-neu'tics." The science of explaining an author's words and phrases; exegesis.

P. 9. "*Nibelungen Lied*." This poem is divided into two parts. The first treats of the marriage of Günther, the King of Burgandy, to Queen Brunhild of Island (Iceland?), and of the marriage of Siegfried, a prince of the Netherlands, to Kriemhild, the sister of Günther. The "Nibelung hoard" was a great mass of gold and precious stones which Siegfried had obtained from the Nibelungen, a tribe of Norway, and given to his wife as a marriage portion. Günther, moved by jealousy, induced Hagan, a Dane, to murder Siegfried, and the murderer seized the treasure and secretly buried it. The second part of the story tells of the marriage of Kriemhild with Etzel, King of the Huns. Out of revenge Kriemhild invites Günther and the leading Burgundians to her husband's court, and on her trying to compel them to tell her where her treasure was hidden, a tumult arose in which all the principal characters including Kriemhild herself met their death.

"*Epistolæ Obscurorum Virorum*." Letters of Obscure Men. A collection of satirical letters, published anonymously in 1515 and 1517. They held up to ridicule the ignorance and perversity of the clergy, and were prohibited by the pope, which only added to their popularity. To add to their effect they were written in dog-Latin.

P. 15. "Märchen." Legends or tales.

P. 19. "Rousseau," Jean Jacques. An eminent Swiss philosopher and author. His book entitled "Confessions" gives an 'extremely candid and free account of the irregular habits, the adventures, the vagaries, and vicissitudes of his early life'.

"Spinoza." A celebrated Dutch-Jewish pantheistical philosopher. (See *Index* in "*German Literature*" for this and many

other names referred to throughout the book; the dates for all such will be found there.)

P. 20. "Felton," Cornelius Conway. A distinguished American author and scholar, especially well versed in languages. For some years he was president of Harvard University.

"Brooks," Charles T. A Unitarian minister and a poet. He published translations of several German works. (For Ripley and Hedge see *Beer's "Outline Sketch of American Literature."*)

P. 25. "Melancthon," Philip. A celebrated German reformer and scholar. He helped Luther in his translation of the Bible. After the death of Luther he was regarded as the leader of the Reformation in Germany.

P. 27. "Michelet," Jules, mē-sheh-lā. A renowned French historian.

P. 32. "Wartburg Castle." This old castle is situated in the northwestern part of the Thuringian forest, near Eisenach. It was built in 1070.

P. 34. "Elector of Saxony." Frederick III., known as Frederick the Wise.

"Hazlitt," William. An English critic.

P. 44. "Ossian." "A semi-fabulous Scottish bard and hero of the third century, who was said to be the son of Fingal, King of Morven. A pretended translation of his poems, which was published by James Macpherson in 1765 gave rise to a spirited controversy among the English literati concerning the genuineness of these productions." (See *Beers' "Outline Sketch of English Literature."*)

P. 46. "Joseph Collyer." (1748-1827.) An English engraver and linguist.

P. 51. "Pindaric." An ode in imitation of those of Pindar, the greatest lyric poet of Greece, who lived in the sixth century B. C.

P. 58. "Descartes," René, rā-nā dā-cart. A celebrated French philosopher and mathematician, the author of the enthymeme "*Cogito, ergo sum*," "I think, therefore I am".

"Mr. John Morley." An English author and critic. At different times he has been editor of the *Literary Gazette*, the *Fortnightly Review*, and the *Pall Mall Gazette*, and has published several critical and biographical works.

"Taylor (of Norwich)," William. (1765-1836.) An English writer and translator of works from German, French, and Italian.

P. 59. "Eucharis." A beautiful nymph on the island of Calypso with whom Telemaque fell deeply in love, and of whom Calypso was very jealous.

"Calypso." In mythology she is represented as the queen of the island, Ogygia, on which Ulysses, a hero of the Trojan War was wrecked. She fell in love with him, and retained him on her island for seven years. Later Telemaque, son of Ulysses, was cast by shipwreck upon the island and detained by the wiles of the goddess in the same way his father had been.

P. 63. "Mr. Bonnet," Charles. A Swiss naturalist and philosopher. Among his published works was one entitled "*Philosophical Researches on the Evidences of Christianity*".

P. 64. "Solon." (About 638-559 B. C.) The great Athenian lawgiver. He was ranked among the "seven wise men of Greece".

P. 67. "Parsee." An adherent of the ancient Persian religion; a fire-worshiper.

P. 69. "Boccaccio," Giovanni, jo-van-ni bok-kat'-cho. (1313-1375.) An Italian author. His best known work is the "*Decamerone*," from which Shakspeare drew several subjects for his dramas.

P. 78. "Sophocles." A famous Greek tragic poet. In his drama "*Philoctetes*," the hero from whom the drama is named is represented as having been bitten on the foot by a viper, while on the way to Troy, which had caused a very painful wound of the most disgusting nature. This together with his cries and execrations made him intolerable to his friends, and they left him on the island of Lemnos.

P. 79. "Robert Hall." An eminent English preacher, author of several publications. "For nearly all his life he was afflicted with a mysterious disease, from which he suffered so intensely that for more than twenty years he was never able to pass an entire night in bed, and was often obliged to take, in a single night, one thousand drops of laudanum. On examination after death it was found that the source of his suffering was a rough-pointed calculus that entirely filled the right kidney."

P. 80. "Hercules." The most renowned of the mythical heroes of antiquity. His wife becoming very jealous determined to put him to death rather than to suffer being supplanted in his affections. Accordingly she steeped in poison a white garment which he was accustomed to wear while offering sacrifice. The poison penetrated into his body and caused him the most excruciating agony. He ended his sufferings by placing himself upon a pile of wood, which he ordered to be set on fire.

P. 82. "La Mettrie," Julian Offray. (1709-1751.) A French physician and philosopher.

"Democritus." (About 460-360 B. C.) A Greek philosopher, the founder of the Atomistic school. He was called the laughing philosopher, because he taught that a philosopher should look upon all the follies of men with the most serene equanimity.

P. 85. "Bodmer," Johann Jakob. A Swiss critical writer.

"Anacreon." A celebrated Greek lyric poet who lived in the sixth century B. C. He wrote odes on love and wine which have been used as models by many poets. This species of poetry has been named from him Anacreontic.

P. 88. "Don Quixote," ke-hō'ta. The hero of the great Spanish romance of the same name, written by Cervantes (1547-1616).

P. 89. "Ariosto," Ludovico. (1474-1533.) A great Italian poet.

NOTES ON REQUIRED READING IN "THE CHAUTAUQUAN."

LITERATURES OF THE FAR EAST.

1. "Gandharvas." The horses of the sun in Vedic mythology, symbols of the fierce rays of Surya, the god of the sun, who is the chief of their divinities.

2. "Rakshasas." A species of monstrous evil beings similar to the Typhonic monsters of the Egyptians.

3. "Zoroaster." The founder of the ancient Persian religion. The time in which he lived is not known, and there is very little of trustworthy information regarding his career and his history as a reformer. His system of religion teaches that the world is the scene of conflict between evil and good forces; that both of these possess creative power, but that the good is eternal and will finally prevail.

4. "Dr. William Carey." (1761-1834.) An English Oriental-

ist and Baptist missionary. He founded the Serampore mission and was made professor of Sanscrit, Bengalee, and Mahratta, at Fort William. He published several works in these languages and translated a number from them into English.

5. "Dr. Joshua Marshman." He also was an English Baptist minister who was sent by the missionary society of that denomination to India. He became a proficient in Oriental languages, writing works in them and translating from them into English. Among his translations were the writings of Confucius.

SUNDAY READINGS.

1. "Renan," Ernest. (1823 —) A renowned French writer, critic, and Orientalist. In 1860 he was sent to Syria to

search for relics and traces of ancient learning. After his return he was appointed professor of Hebrew in the College of France, but being thought unsound of faith he was removed in 1862. He concedes that there is great excellence in the Christian religion, but refuses to accept it as of divine origin and entirely discards the miracles. Among his best known works is the "Life of Jesus," which attained popularity chiefly on account of the perfection of its style. It has been denounced as impious by a number of French prelates.

2. "Academy and Porch." The former name was originally given to a pleasure ground in the suburbs of Athens. Socrates often resorted thither and gave many of his discourses in the delightful place. Plato gave instructions in his philosophy in its groves, and from its name his school took the name Academic, and this in time was applied to all the followers of Plato. The Stoics were called the Philosophers of the Porch, taking the name from a public portico in Athens where Zeno (about 358-260 B. C.) used to instruct his disciples.

3. "Rev. Henry Elliott Mott." A Congregationalist minister, ordained in 1878. He was called to a church in Newburyport, Massachusetts, in 1884, where he remained until very recently, when he accepted another call to Dubuque, Iowa.

GLASS MAKING.

1. "Pliny," the Elder. (23-79.) A famous Roman naturalist. His "Natural History" which is the only book extant of the many he wrote, includes among the subjects treated, astronomy, natural philosophy, geography, agriculture, commerce, medicine, the arts, and natural history properly so called. He perished in the destruction of Pompeii.

2. The tombs at Memphis are described as consisting of three parts, 1. an exterior temple or chapel, 2. a sepulchral chamber in which the mummy was placed, 3. a vertical passage way connecting the two. The walls of the second were covered with representations of the scenes and occupations in which the deceased person had passed his life.—The painting on a tomb in Beni Hassan, Egypt, shows glass blowers at work with blowpipes quite like those in use at the present day.—Sakkara is a village in Egypt twelve miles south of Ghiseh on the left bank of the Nile, remarkable for the pyramids near it.

3. *Farrago*. A Latin word meaning mixed fodder for cattle. Hence it has been applied to any mass of various materials; a medley.

THE SITUATION IN EUROPE.

1. "The Treaty of Westphalia." This was signed at the end of the Thirty Years' War, that great religious war, the causes of which reach back to the time when the Reformation divided Germany into two great religious parties. Nearly every European power had a voice in the settlement of the terms of the treaty. An age of toleration, as compared with what had existed before, was introduced by it. Protestants were to have an equal right with the Catholics in the high courts in all religious questions. "Whatever might be the faith of the prince, the religion of each state was to be Catholic or Protestant, according to its position in 1624 which was fixed upon as the normal year."

2. "The wars of Louis the Fourteenth threatened the general equilibrium of Europe, either by adding largely to the domain of France on the side of the Rhine, or by covering in the whole of Spain under the French crown. To both of these results the powers of Europe generally raised objections and, consequently, Louis was practically obliged to fight all Europe, and in the end, to be content with the territory he had possessed at the beginning.

3. "Frederick's wars were, strictly speaking, simply a family quarrel among Germans; and, but for exterior interference mainly on the part of France, would have involved nothing whatever that called for foreign intervention in defense of the principles promulgated in the Treaty of Westphalia. Other powers were drawn into the contest through individual alliances formed

for individual rather than international purposes."—C. K. Adams.

4. "Murat" Joachim. (1771-1815.) A celebrated marshal of France. He fought with the Italians against the Austrians, and was defeated at Macerata, 1815, and fled to France. Shortly afterward with about thirty men he landed in Naples, and tried to recover it, but was seized and shot.

5. The revolution of 1830 was directly caused by the "ordinances of St. Cloud," issued by Charles X. By these he suppressed the freedom of the press, dissolved the newly elected chamber of deputies, and so modified the manner of election as to secure the success of the court party. Too late he recalled these fatal decrees. The city of Paris was in a wild tumult over them; the king was deserted by his troops; and he was obliged to flee.—The revolution of 1848, in France, was communistic in its nature. Ideas of a provisional government had gained great strength; all the higher classes began to fear mob violence; and the king, Louis Philippe, was obliged to flee. Immediately on the downfall of the Orleans house in France, insurrections broke out in Germany, in Austria, in Hungary, and in Italy.

6. "The Schleswig-Holstein movement." The two duchies of Schleswig and Holstein, long governed by Denmark against their will, after a three years' war in which they were helped by Prussia, were classed again among the possessions of the king of Denmark. In 1863 the Danish king, Ferdinand VII., issued a decree for a separation of Schleswig from Holstein and its incorporation in Denmark. Prussia and Austria both determined to resort to war to prevent this. They conquered Ferdinand and compelled him to sign a treaty in 1864, resigning the duchies to Prussia and to Austria. Prussia wished the duchies in order to strengthen her own seaports. Austria if possible was determined to prevent Prussia from making this gain, and this led to the war of 1866.

7. "Cavour," Camillo Benson di, Count. (1810-1861.) A great statesman, the prime minister of Victor Emanuel.

8. "Napoleon III." (1808-1873.) Son of Louis Bonaparte and Hortense de Beauharnais, the daughter of the Empress Josephine. He was emperor of France from 1852 to 1870. On the establishment of the French republic at this latter date, he soon after retired to Chislehurst, England, where he died.

9. "Victor Emanuel," II. (1820-1878.) The first king of Italy.

10. "Catherine of Russia." Catherine II. (1729-1796.)

11. "Emperor of Germany," Joseph II. (1741-1790.) The elder son of Francis I. and Maria Theresa. He reigned as emperor from 1765 till his death. Catherine II., after making a journey through her eastern provinces, undertook one in 1787 through the southern part of her empire, and during her triumphal progress she was joined by Joseph. They were closely associated in several political schemes, among which was the dismemberment of Poland.

12. "Peter the Great." (1672-1725.) Emperor of Russia. Catherine II. married the son of Elizabeth, the daughter of Peter the Great.

13. "The Treaty of San Stefano." The treaty which brought to a close the Russo-Turkish War.

14. "Katkow," Mikhail. (1820-1887.) The name is better known as Katkoff. His paper was the *Moscow Gazette*.

LIFE AND MANNERS.

1. "Dean Swift," Jonathan. (1667-1745.) A celebrated political writer, a satirist. He held the position of dean of St. Patrick's, Dublin. His most famous literary works were "The Tale of a Tuh"—a satire on the Catholics—and "Gulliver's Travels".

2. "Lord Bolingbroke," Henry. (1678-1751.) An English author and politician.

3. "Jaques." A morose moralizer in Shakspeare's "As You Like It." The expression he uses is found in Act II. Scene 7.

4. "Bailey," Philip James. (1816-1874.) An English poet.

5. "Repoussé work." "Ornamented metal work formed in

relief by hammering upon the metal from the back until the required forms are roughly produced in relief upon the surface, which is afterward finished by the process of chasing."

6. "Lord Erskine," Thomas. (1750-1823.) An illustrious British orator and advocate. His first case was that of a Captain Baillie tried for libel on the Earl of Sandwich. "Then was exhibited," says Lord Campbell, "the most remarkable scene ever witnessed in Westminster Hall. It was the *début* of a barrister, wholly unpracticed in public speaking, before a court crowded with men of the greatest distinction, belonging to all parties in the state. And I must own . . . that it was the most wonderful forensic effort of which we have any account in our annals."

ASTRONOMICAL NOTES FOR MARCH, 1888.

THE SUN.—On the 1st, rises at 6:33, and sets at 5:52; on the 11th, rises at 6:17, and sets at 6:03; on the 21st, rises at 6:01, and sets at 6:13; length of day increases 1h. 21m.; enters *Aries*, and Spring begins on the 19th, at 10:48 p. m.

THE MOON.—Presents the following phases: Enters last quarter on the 4th, at 10:17 p. m.; becomes new on the 12th, at 11:13 a. m.; enters first quarter on the 20th, at 3:35 p. m.; is full on the 27th, at 4:59 p. m.; is farthest from the sun on the 16th, at 9:06 a. m.; is nearest the sun on the 28th, at 5:24 p. m.; rises on the 1st, at 9:48 p. m.; on the 11th, at 6:01 a. m.; on the 21st, sets at 1:42 a. m.

MERCURY.—On the 1st, rises at 6:30 a. m., and sets at 6:14 p. m.; on the 11th, rises at 5:36 a. m., and sets at 4:46 p. m.; on the 21st, rises at 5:05 a. m., and sets at 4:01 p. m.; diameter decreases from 10".4 on the 1st to 7".4 on the 31st; up to the 16th, has a retrograde motion of 8° 57' 15"; and for the rest of the month, a direct motion of 9° 45' 45"; on the 3rd, at 2:00 p. m., is in line between the earth and sun; on the 11th, at 1:08 a. m., is 5° 08' north of the moon; on the 17th, at 1:00 a. m., is stationary; on the 21st, at 2:00 p. m., crosses the ecliptic going south; on the 27th, at 8:00 a. m., is 2' north of *Venus*; on the 30th, at 9:00 a. m., is at its greatest western elongation (27° 49'), and can be seen by the naked eye before sunrise for several days before and after this date; on the 31st, at 7:00 p. m., is farthest from the sun.

VENUS.—Is a morning star, rising on the 1st, at 5:07 a. m.; on the 11th, at 5:05 a. m.; on the 21st, at 4:59 a. m.; diameter diminishes from 13" on the 1st to 11".6 on the 31st; has a direct

motion of 37° 05' 45"; on the 9th, at 4:28 p. m., is 18' north of the moon.

MARS.—Has a direct motion of 3' 15" up to the 4th, and after that date to the end of the month, a retrograde motion of 4° 41' 45"; on the 29th of February it rises at 9:50 p. m., sets on the 1st, at 8:46 a. m.; rises on the 10th, at 9:06 p. m., and sets on the 11th, at 8:08 a. m.; rises on the 20th, at 8:21 p. m., and sets on the 21st, at 7:23 a. m.; diameter increases from 12".4 on the 1st to 16" on the 31st; on the 1st, at 5:45 p. m., is 2° 36' south of the moon; on the 4th, at 6:00 a. m., stationary; on the 28th, at 9:07 p. m., is 2° 35' south of the moon.

JUPITER.—Rises on the 1st, at 12:52 a. m., and sets at 10:24 a. m.; on the 11th, rises at 12:11 a. m., and sets at 9:43 a. m.; on the 20th, rises at 11:36 p. m., and sets on the 21st, at 9:08 a. m.; diameter increases from 36".1 on the 1st to 39".8 on the 31st; up to the 22nd, has a direct motion of 42' 30", and for the rest of the month, a retrograde motion of 10'; on the 4th, at 5:28 a. m., is 3° 47' south of the moon; on the 22nd, at 2:00 a. m., is stationary; on the 31st, at 1:28 p. m., is 3° 32' south of the moon.

SATURN.—Rises on the 1st, at 2:14 p. m., and sets on the 2nd, at 4:44 a. m.; rises on the 11th, at 1:33 p. m., and sets on the 12th, at 4:03 a. m.; rises on the 21st at 12:53 p. m., and sets on the 22nd, at 3:23 a. m.; diameter diminishes from 18".8 on the 1st to 18" on the 31st; has a retrograde motion of 48' 30"; on the 22nd, at 10:46 p. m., is 1° 20' north of the moon; on the 30th, at 10:00 p. m., stationary.

URANUS.—Has a retrograde motion of 1° 07' 45"; diameter about constant at 3".8; on the 28th, at 2:50 a. m. is 4° 16' south of the moon; rises on February 29th, at 8:44 p. m., sets on the 1st, at 8:04 a. m.; rises on the 10th, at 8:03 p. m., and sets on the 11th, at 7:23 a. m.; rises on the 20th, at 7:22 p. m., and sets on the 21st, at 6:42 a. m.

NEPTUNE.—Has a direct motion of 39' 30"; diameter, 2".6; on the 17th, at 8:28 p. m., is 3° 17' north of the moon; rises on the 1st, at 9:58 a. m., and sets on the 2nd, at 12:06 a. m.; rises on the 11th, at 9:20 a. m., and sets at 11:28 p. m.; rises on the 21st, at 8:41 a. m., and sets at 10:49 p. m.

OCCULTATIONS (Moon).—On the 6th, *Mu Sagittarii*, beginning at 1:55, and ending at 2:28 a. m.; on the 6th, *15 Sagittarii*, beginning at 2:18, and ending at 3:10 a. m.; on the 26th, *b Virginis*, beginning at 10:52 p. m., and ending at 12:07 a. m., on the 27th (all Washington Mean Time).

QUESTIONS AND ANSWERS.

HATFIELD'S "PHYSIOLOGY AND HYGIENE."

1. Q. What is the first wealth which man should seek to possess? A. Health.
2. Q. How can this wealth be kept? A. Only by caring for its preservation.
3. Q. What is Nature's method for keeping the house of the body in good order? A. Exercise.
4. Q. Will exercise do more than to keep the body in health? A. It will repair inherited and acquired defects, and do much toward body-building.
5. Q. Is loss of health ever occasioned by a defect in one part of the system? A. Yes, even when all the rest of the system is in good condition.
6. Q. When should active exercise be avoided? A. Directly after a full meal.
7. Q. Is active exercise before breakfast generally beneficial? A. It is not.
8. Q. What forms of exercise are most to be relied upon by those already in health? A. Such as bring into play most of the voluntary muscles.
9. Q. What is one of the best forms of exercise for this purpose? A. Walking.
10. Q. What is the best rule as to the extent and degree of exercise? A. That it shall continue until there is a feeling of warmth, or of slight perspiration.
11. Q. What exercises are good to broaden and deepen the chest? A. Any which will cause one to frequently fill the lungs to their utmost capacity.
12. Q. What is good practice for strengthening the front of the chest? A. Moving dumb-bells up and down when the arms are extended at right angles with the body.
13. Q. In what way may the triceps muscles be strengthened? A. By pushing against any solid or heavy object, or by raising one's self from the floor by resting the hands on firm supports.

14. Q. What is good work for developing the forearm? A. Anything which necessitates shutting the hand, as chopping, driving, batting ball, etc.
15. Q. What exercise is recommended for obtaining good biceps muscles? A. Any which bends the elbow and draws the hand in toward the shoulder.
16. Q. What will tend to bring up the muscles on the front and side of the shoulder? A. Holding out weights at arms'-length either in front or at the side.
17. Q. What is chiefly recommended for developing the muscles of the back, waist, and abdomen? A. Exercising in various ways with dumb-bells.
18. Q. What is good exercise for the muscles of the leg below the knee? A. While standing, to slowly raise the heels from the floor and sustain the weight of the body as nearly on the toes as possible.
19. Q. What muscles do jumping, skating, lifting, running, and fast walking bring into use? A. Those in front of the thighs.
20. Q. Of what weight should the dumb-bells used by women and girls be? A. For the first exercises, one pound, and should gradually increase to four or five pounds.
21. Q. What should form part of the daily exercise of women and girls? A. Walking from one to four miles in broad easy shoes.
22. Q. What is a frequent defect in regard to the position of the head? A. It is carried too far forward.
23. Q. What is the best method for curing lateral curvature of the spine? A. Any movement which will tend to level the shoulders.
24. Q. What must be conjoined with good methods of exercise in order to produce good effects? A. The habit of living on good plain diet.
25. Q. What will all of these suggestions, if carefully carried out, tend to do for mankind? A. Lengthen their days and build them up into a vigorous manhood and womanhood.

WALKER'S "PLAN OF SALVATION."

1. Q. What is acknowledged by all men to be a fundamental evil of human nature? A. Selfishness.
2. Q. What results wherever selfish ambition exists in any degree of strength? A. Misery to the individual and to others about him.
3. Q. What condition was it necessary that the Messiah should assume in order to benefit the human family in the highest degree? A. That in which He would have the most direct influence in destroying selfishness and pride.
4. Q. What was the result of Christ's humble life and ignominious death? A. That no man could find fellowship with Him until the pride and selfishness of his nature were subdued.
5. Q. How is this preceding statement confirmed? A. Both by profane history and by the New Testament Scriptures.
6. Q. Upon what has God caused the happiness of the human soul to depend? A. Upon righteousness and goodness.
7. Q. What are the fundamental principles in the instruction of Christ? A. Those which can produce the happiness of the soul in accordance with its own moral nature and the moral character of God.
8. Q. For what was the constant inquiry and search in the schools of philosophy? A. For the "greatest good."
9. Q. Why were they not successful in their efforts? A. Happiness can not be gained by direct efforts; it is the result of right action.
10. Q. Was it necessary that the recipients of Christ's instruction should understand the principles which governed Him? A. No, it was sufficient that the instruction should promote righteousness and goodness.
11. Q. In how many ways can truth be brought into contact with the human mind? A. Two: by knowledge and by faith.
12. Q. What is true of facts acquired by personal observation? A. That their effect upon the soul grows less, the oftener they are experienced.
13. Q. What, on the contrary, is true of facts acquired by faith? A. The effect grows greater with each realization.
14. Q. Which of the two would then be the method better adapted to bring truth to bear upon the souls of men? A. Faith.
15. Q. What is true regarding man's belief in falsehood? A. The more sincere it is, the more destructive to all his interests.
16. Q. What is a sure test for proving whether a doctrine be the TRUTH of God? A. Its power to make happiness grow out of right living and right thinking.
17. Q. Why were not the manifestations of God's mercy under the Old Testament dispensation adapted to the New? A. Because they were temporal in their character, and applied only to the Jews.
18. Q. What part of the Mosaic economy, however, was universal and immutable in its character? A. The moral law.
19. Q. Under the new dispensation how could the affections of the soul be fixed on God? A. The soul must be made to experience abject need, and then be delivered from this condition of suffering.
20. Q. How could men be brought to feel the need of a spiritual benefactor? A. They must be convinced of their own inability, to escape from their dangerous condition.
21. Q. What is the central and vital doctrine of the Plan of Salvation? A. That God, through Christ, manifests Himself to rescue from spiritual death every soul conscious of its guilt and believing in God.
22. Q. What two insuperable difficulties would forever hinder the salvation of mankind by human means? A. 1. Human instruction has no power to bind the conscience; 2. Truth has no power to produce love.
23. Q. To what are the laws introduced by the Gospel analogous? A. Those which govern physical nature.
24. Q. To what is the affection which holds the soul to God likened? A. The power of attraction which holds the earth to the sun.
25. Q. How were the ruins of man's fall rebuilt? A. Christ by His teachings and work reconciled the world to God.
26. Q. What is the influence of faith in Christ? A. Those who truly love Him serve Him, by doing good to others.
27. Q. What are recognized as most important among the means of grace? A. Prayer, praise, and the preaching of God's Word.
28. Q. What truth concerning the means of grace do the Scriptures clearly reveal? A. That the Spirit of God gives efficiency to them.
29. Q. When was the Spirit of God fully communicated, to guide the Gospel dispensation? A. Not until the whole economy was completed—which was on the Day of Pentecost.
30. Q. What was the evidence proposed by Christ as proof of the divinity of the Gospel? A. Its practical effect upon individuals who receive and obey its truth.
31. Q. What places the Bible upon the basis of a moral necessity? A. The fact that the moral constitution of man implies, in order to its development, a *Written Revelation*.
32. Q. From what source alone can the culture which improves nature come? A. From man who is the lord of the lower creation.
33. Q. Is man himself an exception to the law that no species can raise itself above its natural condition? A. All history and experience testify that he is not.
34. Q. In the moral culture of the soul upon what does everything depend? A. Upon the revelation of truth.
35. Q. Where alone can the characteristics which adapt truth to the ends of moral culture be found? A. In the Scriptures.

WILKINSON'S "CLASSIC GERMAN COURSE IN ENGLISH."

1. Q. What period in Germany was predominantly literary? A. That which had its culmination in Goethe.
2. Q. What other leading literary persons were included within this period? A. Klopstock and Heine.
3. Q. With whom did the dawn of the national literature of Germany rise? A. Luther.
4. Q. What celebrated important literary product of Germany was old before Luther's day? A. The epic poem, *Nibelungen Lied*.
5. Q. What two writers are mentioned as worthy of a place by the side of Luther? A. Hans Sachs and Von Hütten.
6. Q. By what event was Germany brought close to the brink of irrecoverable desolation? A. The Thirty Years' War.
7. Q. What names gained a place in the literature of the country even during that period? A. Kepler, Leibnitz, Opitz, and Gerhardt.
8. Q. What political condition hostile to a national literature followed the Thirty Years' War? A. The division of the country into numerous separate governments.
9. Q. While this literary impotency was resting upon Germany what was the condition in England and France? A. Milton produced "*Paradise Lost*", and the glories of the reign of Louis XIV. were in full blaze.
10. Q. When was the true German spirit aroused once more? A. When Frederick the Great became king of Prussia.
11. Q. With what publication did German literature begin fairly to go forward again? A. Klopstock's "*Messiah*".
12. Q. In what forms of literature is Germany strong? A. In dramatic and lyric poetry; in folk-lore, history, criticism, and philosophy.
13. Q. In what form is it singularly weak? A. In the literature of public discourse, eloquence, and oratory.
14. Q. What exterior peculiarities of German literature are specified? A. Six: its abundance of books; the lack of those admirable at once for matter and form; its lateness in beginning; the interruptedness of its history; its imitative disposition; and its social character.
15. Q. What six interior peculiarities are mentioned? A. Appreciation of intellectual merit wherever found; passion for philosophy; freedom of thought; sentimentalism; delight in nature; and religiosity.
16. Q. Among these characteristics what two at first sight seem paradoxical? A. Its imitativeness and its freedom of thought.
17. Q. What work fixed for Germans the form of their literary language? A. Luther's translation of the Bible.
18. Q. What was the condition of the German language before Luther? A. It was distracted into dialects.
19. Q. From what work of Luther's are many glimpses of his own life and character obtained? A. The "*Table-Talk*".
20. Q. Of what memorable and magnificent hymn is Luther the author? A. "*Ein feste Burg ist unser Gott*".
21. Q. What royal personage published a book in confutation of Luther's teachings? A. King Henry VIII. of England.
22. Q. What title was bestowed upon the king by the pope for this work? A. Defender of the faith.
23. Q. How was his accusation met by Luther? A. He hurled against it a violent and sharp reply.
24. Q. What did Luther urge all the cities of Germany to found and maintain? A. Public schools.
25. Q. What branches did he hold should be taught to children? A. Language, history, vocal and instrumental music, and mathematics.
26. Q. What was the greatest literary production of Klopstock? A. The "*Messiah*".
27. Q. What is the subject of this great epic poem? A. The redeeming work of Jesus the Christ.
28. Q. From what sources besides the Bible did Klopstock draw largely? A. Milton's "*Paradise Lost*", and Young's "*Night Thoughts*".
29. Q. What invention in the "*Messiah*" associates itself with an imaginary character in "*Paradise Lost*"? A. The personage named Abaddon.
30. Q. In what field of literature besides poetry does Klopstock deserve a hearing? A. Poetical criticism.
31. Q. Who was Lessing? A. A German dramatic writer and critic.
32. Q. What was the distinguishing note in his character? A. Intellectual independence.
33. Q. What French writer did he mercilessly criticize? A. Voltaire.
34. Q. What are Lessing's masterpieces? A. "*Nathan the Wise*" and the "*Laocöon*".
35. Q. To what real person did Lessing owe the conception of the leading character in "*Nathan the Wise*"? A. To the gentle Hebrew sage, Moses Mendelssohn.
36. Q. What sentence of Lessing's is most characteristic of the man? A. That in which he expresses preference for the pursuit of truth over the possession of truth.
37. Q. What celebrated writer of Germany is little known among the English? A. Wieland.
38. Q. What was Wieland's masterpiece? A. "*Oberon*".
39. Q. What characteristic in "*Oberon*" is unique in German literature? A. Its happy wholeness and oneness.
40. Q. What were the traits in Wieland both as author and man which engage the kind feelings of the reader? A. His brightness, good-nature, and desire to please.

THE QUESTION TABLE

CURIOS IN AMERICAN HISTORY.

1. The H and R with which Quakers were branded in the early colonial days were initials of what words?
2. What was Van Tromp's broom?
3. What date was stamped on the pine-tree shillings?
4. What was the liberty-cap cent?
5. Where is liberty bell?
6. What was the battle of the kegs?
7. What was called the Ograbme Act?
8. What conflict was called the Terrapin War?
9. What was the walking purchase?
10. In what colony did the pine-tree flag originate?
11. From what book was the church music sung by the Puritans?
12. What was the duty of the Puritan constables during church service?
13. What was meant by applying the beech seal?
14. When and by whom were palmetto cockades worn?
15. What was the swamp angel?

AMERICAN AUTHORS.

1. What humorist adopted as his *nom de plume* a term which he had been familiar with when a pilot?
2. What poem of Longfellow's is founded upon historical incidents in Plymouth Colony?
3. What Pennsylvanian has been called the poet-artist?
4. What author who is a banker, poet, and critic, wrote "Pan in Wall Street"?
5. Under what circumstances did Audubon say, "I took up my gun, my note-book, and my pencil, and went forth to the woods as gayly as if nothing had happened"?
6. What humorist takes part in every political campaign, writing as an illiterate person from Cross Roads?
7. What author was drowned when returning from Italy?
8. Who is said to have given the best translation of Faust?
9. What author has a home on Lake George, called "Owl's Nest"?
10. What author has written a book which gives his experience while colonel of the first slave regiment in the Civil War?

BOTANY—II.

1. In honor of what Swedish botanist was the dahlia named?
2. The cypress received its name from what island?
3. What tradition gives the Judas tree its name?
4. In memory of what early botanist of Virginia was the claytonia named?
5. What tree is named after the French botanist Prof. Magnol?
6. The passion flower gets its name from a fancied resemblance to what?
7. What German botanist's name is given to the zinnia?
8. What is the derivation of the word poplar?
9. Mythology says the physician Paeon first used a plant, which now bears his name, to cure Plato,—what is its name?
10. The name iris signifies what?
11. What flower commemorates the name of the botanist Leonard Fuchs?
12. What governor of New York is honored in the name clintonia?
13. What is the origin of the word pinus?
14. How does mythology account for the name hyacinth?
15. From whom did nicotine gets its name?

THE WORLD OF TO-DAY.

LIBRARIES.

1. With what art are libraries probably coeval?
2. What is the oldest library of which we have record?
3. What was the largest and most celebrated library of antiquity?
4. How was the heat of the burning Alexandrian library utilized?
5. What library was given to Cleopatra by Marc Antony?
6. To what class of institutions did nearly all libraries belong after the fall of Rome up to the fourteenth century?
7. To what is the world indebted for the preservation of the classics?
8. What European libraries contain over a million volumes?
9. Where is the Bodleian library, and how many volumes has it?
10. What libraries of Great Britain are entitled by statute to a copy of every book published in the Empire?
11. What was the origin of public libraries in Canada?
12. What large libraries are in Washington?
13. How is the library of Congress increased?
14. What college library was first established in the United States?
15. What university has recently come into possession of the Von Ranke library?

MISCELLANEOUS.

1. What name is given New York City by Irving in "Salmagundi"?
2. What was the origin of liberty poles?

3. What two kings met on the Field of the Cloth of Gold?
4. How many pounds of bread are yielded by 100 pounds of white flour?
5. What anachronism is found in Shakspeare's play of "King John"?
6. What painting was Washington Allston engaged upon at the time of his death?
7. What is Bologna stone?
8. Who was Kit Carson?
9. What name was given by the ancients to an engine of war used by them for discharging arrows?
10. What owl hunts its prey in daylight?
11. What character in one of Dickens' novels is said to be a portrait of the author's mother?
12. What are called the lungs of London?
13. Of what magic potion does Homer speak, which made persons forget their sorrows and misfortunes?
14. What is a penny-a-liner?
15. To what deity was the oak sacred?

ANSWERS TO QUESTIONS IN THE CHAUTAUQUAN FOR FEBRUARY. WOMEN OF AMERICAN HISTORY.

1. Isabella of Spain/wife of Ferdinand.
2. Virginia, in honor of Elizabeth the virgin queen.
3. Port Royal, Nova Scotia.
4. Pocahontas.
5. She was the first child born of English parents on American soil (Roanoke Island, 1587).
6. Mrs. Anne Hutchinson.
7. Hannah Dustin and Mary Neff.
8. Henrietta Maria, wife of Charles I.
9. Deborah Sampson, of Plymouth, Massachusetts.
10. Molly Pitcher, for her services during the battle of Monmouth.
11. Mary Raymond.
12. Jane McCrea.
13. In a voyage from America to Scotland the ship was attacked by the enemy, and Flora, although nearly sixty years of age bravely engaged in the fight and had her arm broken.
14. Bennington.
15. Overhearing the plans in a council of war which was held in her house, she rode to the American lines under pretence of going to mill, and sent word of the impending attack to General Washington.
16. She volunteered to carry a message to Sumter's camp. She was captured by Tory scouts, but when left alone ate up the letter, and no evidence being found against her she was dismissed. She then proceeded to General Sumter, told him the contents of the letter, and soon he and Marion were co-operating with Greene.
17. She entertained the British officers at her house with wines, refreshments, and vivacious conversation to give the guard under Putnam time to retreat.
18. She furnished lighted arrows with which to fire the roof of her dwelling which the British were occupying as a fort.
19. The mother of George Washington.
20. Stuart's portrait of Washington, and the parchment with the engrossed copy of the Declaration of Independence, and autographs of the signers.

LOCALITIES REFERRED TO IN AMERICAN LITERATURE.

1. Washington Irving.
2. "The Culpit Fay."
3. H. D. Thoreau.
4. Hiawatha.
5. Helen Hunt Jackson in "Ramona".
6. Bret Harte.
7. Nelson Page.
8. Charles Egbert Craddock.
9. George W. Cable.
10. Joel Chandler Harris.
11. Charles Dudley Warner.
12. Francis Parkman.
13. In Joaquin Miller's "Mexican Seas".
14. "Bigelow Papers".
15. Edward Eggleston.

BOTANY—I.

1. It is a climbing shrub; the fruit is borne on pendulous spikes, each containing 20 or 30 berries.
2. They are the same, only in the white the outer coating of the fruit is removed.
3. Red, then a dark purple; the two seeds in each berry.
4. After flowering, the pod which is forming is forced into the soil by the growing stalk to which it is attached.
5. From the dried bark of a Peruvian tree.
6. The leaves.
7. From the beans of the castor-oil plant.
8. It is the starch accumulated in the tissues of the trunk of the tree to nourish the fruit.
9. The inner bark of the tree is dried and rolls up in the form of a quill.
10. From the thickened fluid of the white poppy, obtained by incisions in the capsule of the plant.
11. The shell covering the kernel, and the kernel itself.
12. A paste made from the roasted seeds of a tree, and mixed with other ingredients.
13. Vanilla beans.
14. The leek.
15. The blossom which is gathered before it has entirely expanded.

POWERS AND POSSESSIONS.

1. Algeria in Africa.
2. Greenland and Iceland.
3. Liberia founded in 1820, established as an independent state in 1847.
4. England, Spain, France, Denmark, Holland, and Sweden.
5. Santo Domingo.
6. Cyprus. It now belongs to England.
7. France.
8. French Guiana in South America; Martinique, Guadaloupe, Descada, and Marie Galante, in the West Indies; St. Pierre, and Miquelon, small islands south of Newfoundland.
9. It was settled by the Portuguese who were expelled from it by the Dutch in 1658. In 1795 the British captured the Dutch forts and towns and it was formally annexed in 1802.
10. Russia.
11. Dominion of Canada, Newfoundland, Bermuda, Honduras, British Guiana, Falkland Islands, and a number of the West Indies.
12. In 1871.
13. Cuba.
14. Great Britain.
15. By act of Parliament in 1858, and formally proclaimed so in 1879.
16. To conquer that

part of Asia lying between the Caspian Sea and China, and also Constantinople and modern Turkey, and to found Russian seats of commerce on the Persian Gulf and Indian Ocean. 17. Afghanistan. 18. Afghanistan. 19. Turkey. 20. 1822.

MISCELLANEOUS.

1. From the Hindu word *sipahi*, meaning soldier. 2. A wire going out and returning to the same point as to a branch office. 3. Or order or bear-

er; or assign; or order as cashier. 4. Hygieia, the daughter of Æsculapius. 5. Twenty-eight years. 6. The low tides which occur in the first and third quarters of the moon. 7. The tackle block for hoisting the anchor. 8. One dollar. 9. Clocks that are regulated to sidereal time, that is time measured by the apparent motion of the stars. 10. Fostering mother; applied to colleges. 11. Horatio Seymour. 12. Gen. George H. Thomas. 13. Unconditional Surrender. United States. 14. Henry Wilson. 15. Ellen Louisa Tucker, whom he afterward married.

TALK ABOUT BOOKS.

In the literary world no more effective blow has been struck in the great "conflict between man and alcohol" than that by Senator Blair in his recent book, "The Temperance Movement."* The large work is filled with well authenticated information on every point involved in this question. The arguments brought forward by the defenders of the liquor traffic are squarely met, and shown either to be fallacious or to be masquerading under false colors. Precious theories held by many, such as that alcoholic drinks aid digestion, give power to resist cold, increase muscular strength, etc., are proved to be utterly false by the testimony of those best competent to judge. It is also shown that a large percentage of insanity is traceable to intoxicating drink. In short the well-conducted investigation shows that the whole race of mankind is worse off physically, mentally, and morally, than it would be if the use of liquor was abolished. The author says, "If prohibition of the traffic were made absolute to-day, and strictly enforced, it would be centuries before the human race could throw out and off the effects of these generations of vileness which now rest upon us with all their cumulative force." A strong point is made of the testimony of several life insurance physicians and officers who prove from statistics that strong drink does shorten human life. The author claims that the total extinction of the evil lies in correct and universal education, and in this connection devotes a chapter to the Educational Bill before Congress. A few short quotations will show his method of dealing with the question of license. "Why not return to the old practice of licensing, or condoning, any crime for cash?" "Why is it more difficult to prevent the manufacture [of alcohol] than the sale, by law?" "There never yet was in any community the necessary public opinion to enforce a license law, which would not accomplish more to remove the curse, if operating to administer a prohibitory law." A full and interesting account is given of the rise and development of the different movements organized in behalf of temperance. The book is a strong one, consistent, convincing, and full of interest. It contains full page portraits of many of the leading temperance workers.

Mr. Froude in studying the English Colonial question does what it would be well if more public writers and speakers could or did do—he gathers the facts from headquarters and lets them speak mainly for themselves. His "Oceana" gave true and pregnant views of the English colonial possessions in South Africa and the Pacific, and the work of the book is only fairly begun. Its mate, "The English in the West Indies,"* contains Mr. Froude's impressions of the condition, value, and outlook of these Islands. It is a much less inspiring picture than "Oceana" contained. It shows bankrupt colonies overrun by an idle and happy-go-lucky black population, the few white inhabitants feeling that they have no or next to no support from the mother country and either sinking into morbid listlessness or advocating union with the United States. Mr. Froude makes very distinct the difference between belonging to the United States and to England when he says: "To be taken into the American Union is to be adopted into a partnership. To belong as a crown colony to the British empire, as things stand, is no partnership at all. It is to belong to a power which sacrifices, as it has always sacrificed, the interest of its dependencies to its own. The blood runs freely through every vein and artery of the American body corporate." Plain talk for an Englishman! Independently of its main significance as a study in colonial government the book is well worth attention. Mr. Froude has a keen appreciation of local peculiarities and local color, and a broad culture which leads him to note interesting historical, linguistic, and social features and he gives these qualities free play in the "West Indies."

The biography of Madame de Staël (the sixteenth issue in the excellent series of Famous Women) is a strong but not a pleasing book. The author, perhaps because she had no absolutely new material at her command and desired to do something original, has portrayed the erratic side of Germaine de Staël. No one who knows her will deny that, from the nineteenth century standpoint at least, she had an erratic side; but no one who appreciates her lofty, passionate, and struggling nature will condone an author for making a book from that standpoint, ignoring her great qualities or hanging them over with weaknesses. If we measure our great lives by the trivial things in them, we shall not have a volume of biography in our libraries worth reading. As a narrator Miss Duffy is not entirely satisfactory. She

has so completely mastered the facts and surroundings of Madame de Staël that she forgets the ignorance of the average mind. These criticisms, however, do not preclude a highly interesting book. There is a spice about this portrayal of the hysterical and inconsistent side of Madame de Staël of far more relish than stilted or insincere admiration.

"Elizabeth Gilbert"† is the record of a beautiful and helpful life, a charming view of an English home, and a truthful representation of the indifference manifested at the beginning of this century toward the deprivations and sufferings of the blind. The book bears evidence of the loving touch of the friend whose hand has written it; yet there is no overestimate of the value of Miss Gilbert's intelligent and practical methods for aiding to self-dependence her blind fellow sufferers.

The expression "science popularized" could never be more justly applied to any work than to Dr. Langley's recent publication, "The New Astronomy."‡ It will be found deeply interesting alike to professional scholars and to general readers. Simple language, apt illustration, vivid description, and telling anecdote will delight the latter class; while originality and independence of thought, accuracy of research, and well substantiated statements will prove the strong points of attraction for the former. The author points out the difference between astronomy as formerly taught and the "new astronomy", to be just the difference existing between the questions, *where* a heavenly body is, and *what* it is. Under the latter inquiry he has made his study of the sun, moon, and stars. The book is a very handsome one containing many illustrations.

So thoroughly done a piece of work as Prof. Mahaffy's "Art of Conversation"§ we do not often see. The sifting and arranging has been so complete that an analysis which prefaces the book includes every point it makes. Evidently this delightful old-fashioned "Analysis" conveys a hint from the author that his book is meant for study and that the student should get this outline completely in his head, and then practice it. Well it will be for him who does so, for the principles are sensible and sound, and the hints most suggestively put. Professor Mahaffy believes as his title indicates that conversational power can be cultivated; and certainly anybody who will master the art as he outlines it will not fall of at least improving his talking powers.

A series of essays by Horace Scudder under the title of "Men and Letters"¶ contains some of his best work in criticism and characterization. The standpoint from which Mr. Scudder looks at a question is always new and well-chosen. Whether it be in giving his thoughts on a man like Elisha Mulford, or a woman like Anne Gilchrist, or in an analysis of Longfellow's art, or in reflections on historical work, he is original and bold. What he writes, too, is suggestive—he leaves you with seed-thoughts capable of extended multiplication; and he is stimulating—he awakens a desire to follow up the theme on which he has put you. "Men and Letters" is an example of the best of recent literary criticism in America.

Almost the only criticism one can make—the only one at least that he is inclined to make—on Miss Harris' charming book, "American Authors for Young Folks"‡, is on the title. It is hard to see why she restricted it to young people. She goes over nearly the whole field of American literature, excepting that belonging to the heavier or technical departments. In a sprightly style, with now and then touches of a quaint humor, she tells something about all of the leading authors, but much more about their works. Her description of Irving's writings applies singularly well to her own, "picturesque, sketchy, half-narrative."

"The Story of the Life of Queen Victoria"¶ written for boys and girls is a very pleasing one, giving as it does bright glimpses here and there into its more prominent scenes. That the author is a most true and loyal British subject the whole tone of the book bears strong evidence. There is no word save that of highest praise for any person or event noticed. The stern facts

* Elizabeth Gilbert and her Work for the Blind. By Frances Martin. London and New York: Macmillan and Co. Price, \$1.75.

† The New Astronomy. By Samuel Pierpont Langley, Ph.D., LL.D. Boston: Ticknor and Company. Price, \$5.00.

‡ Principles of the Art of Conversation. By J. P. Mahaffy. New York and London: G. P. Putnam's Sons. 1888. Price, 75 cts.

¶ Men and Letters, Essays in Criticism and Characterization. By Horace E. Scudder. Boston: Houghton, Mifflin & Co. Price, \$1.25.

‡ American Authors for Young Folks. By Amanda B. Harris. Boston: D. Lothrop Company. Price, \$1.00.

¶ The Story of the Life of Queen Victoria. By W. W. Tulloch, B.D. New York: A. C. Armstrong & Son. Price, \$1.25.

* The Temperance Movement. By Henry William Blair, United States Senator from New Hampshire. Boston: William E. Smythe Company.

† The English in the West Indies, or, the Bow of Ulysses. By James Anthony Froude, New York: Charles Scribner's Sons. 1888. Price, \$1.75.

‡ Madame de Staël. By Bella Duffy. Boston: Roberts Brothers. 1887. Price, \$1.00.

of history which the young readers will learn in time, will dispel from some of the characters at least, the purely roseate colors with which they are surrounded here.

A woman's book, its wit and wisdom from woman's brain, edited and illustrated by women, put into type, printed, and placed on the market by women—such is the "White Ribbon Birthday Book."* This novel combination of forces has resulted charmingly. The selections it offers are strong and stimulating, the very thoughts to stir the army of White Ribboners to braver action and brighter hopes; while the illustrations and mechanical work are most attractive. The Birthday Book in common with many other bright and helpful thoughts had its origin in Rest Cottage at Evanston, Ill., the home of Miss Frances E. Willard; and Miss Anna Gordon, Miss Willard's devoted co-worker, is its editor. It deserves to go around the world, so bounteous is its freight of good cheer and courage.

Dr. McCarty has written a fine account of that summer land of strange people and scenery lying beyond the Rio Grande.† Bright sketches and graphic descriptions show him to have been an enthusiastic traveler, and his quaint and direct manner of writing out his observations adds to the

*The White Ribbon Birthday Book. Edited by Anna A. Gordon. Illustrated by Mary A. Lathbury. Chicago: Woman's Temperance Publishing Association. 1887. Price, \$1.20.

†Through the heart of Mexico. By Rev. J. Hendrickson McCarty, D.D. New York: Phillips & Hunt. Cincinnati: Cranston & Stowe.

reader's pleasure. The history of Mexico, which since the days of the Spanish Cortes, has formed the "pathetic chapter in the world's annals," is passed in review, special interest attaching to the narrative of the ill-fated Maximilian. The condition of the people—the poor laboring classes—although they are nominally free, is such as to leave little choice between it and absolute slavery. The land is represented as held in a grip of steel by what should be its greatest benefactor, its church. The author sees as its only hope, the continuance in power of the Liberal party, and the children, if they can be educated.

A collection of twenty-three brief Christmas letters answering the question "Why do you believe in the immortality of the soul," is out under the title "The Hereafter".* The answers are those which the centuries of past thought, experience, and revelation have given us and are familiar to students of this ever-solemn, ever-new question. But the conviction, the hope, the full satisfaction, are new, strong, persuading. They are the answer of men who have grappled with the problem intellectually, and who have entered into a spiritual life and can add the testimony of what they have learned there to the testimony of reason.

Messrs. Houghton, Mifflin, and Co., offer for one dollar a life-size portrait of the poet Whittier, taken during his eightieth year. The accurate likeness and the excellence of the work make this new portrait a very desirable one.

*The Hereafter. Boston: D. Lothrop Company. Price, 60 cts.

SUMMARY OF IMPORTANT NEWS FOR JANUARY, 1888.

HOME NEWS.—January 1. The fire loss of 1887 in the United States amounted to \$129,264,000.

January 2. Strike of 35,000 men and boys in the Reading collieries.

January 4. Re-assembling of Congress.—The Rev. T. DeWitt Talmage accepts the chaplaincy of the Thirtieth Regiment of Brooklyn.

January 7. Secretary Lamar's resignation accepted.

January 9. Work begins on the ship canal which is to connect the Harlem and Hudson Rivers.

January 10. An accident on the Boston and Maine Railroad causes the death of nine persons.

January 12. An earthquake shock in the South Atlantic States.—Severe snow-storm and blizzard in the North-west, extending from the Rocky Mountains to Lake Michigan.

January 14. Seventh annual meeting in Boston of the Collegiate Alumnae Association.

January 17. Legislature of Washington Territory re-enacts the woman suffrage law.

January 18. Annual Meeting of Chautauqua trustees in Buffalo, N. Y.

January 19. Woman suffrage becomes a law in Wyoming Territory.

January 20. A family of seven persons perish in the flames which destroy their dwelling in Lima, Ohio.

January 21. Death of Mrs. Eliza Ballou Garfield.

January 24. Fire destroys \$1,000,000 worth of property in Philadelphia.

January 25. A bill introduced in the New York Assembly to authorize the building of a railway bridge between New York and Jersey City.

January 27. A snow-storm blockades the railroad trains of the New England and Middle States.

January 30. Death of the eminent botanist, Asa Gray.—Fire destroys property on Broadway, New York, to the amount of \$1,400,000.

FOREIGN NEWS.—January 1. Celebration of the Pope's jubilee in St. Peter's at Rome.

January 3. Disastrous floods in Seville, Spain.

January 4. Twenty-six persons killed and many injured in a collision on the Dutch State Railroad.

January 8. The Rev. Mr. Spurgeon celebrates the publication of his two thousandth sermon.

January 10. Re-assembling of the French Chamber of Deputies.

January 13. Financial panic in Peru.

January 15. Orangemen attack an Irish League meeting in Liverpool, and wreck the hall where the meeting is held.

January 18. Father Ryan released from Limerick jail.—The Rev. Mr. Spurgeon's resignation is accepted by the Baptist Union.

January 20. William O'Brien released from Tullamore jail.

January 23. Attempted assassination of Louise Michel, at Havre.

January 24. Fifty miners killed by an explosion in Victoria, British Columbia.

January 26. The French steamer *Suez* founders at sea; only twelve of the crew rescued.

January 27. Prince William of Prussia celebrates his twenty-ninth birthday.

January 29. Formal betrothal of Prince Oscar of Sweden and Miss Munk.

January 31. Land-slides along the Canadian Pacific Railroad cause great loss of life.

MEETING OF THE BOARD OF TRUSTEES OF THE CHAUTAUQUA ASSEMBLY.

This body met in annual session in Buffalo in the month of January. Though in the busiest month of the year and though many of the trustees must perform long journeys to reach the place of meeting, yet there were few absentees. The men in charge of Chautauqua affairs are sensible of the importance of their work and give it their conscientious, faithful attention.

The business of the annual meeting consists of the hearing of reports from the officers and heads of departments on the past year's work, of elections and appointments for the next year, and that general legislation, planning, and providing which look to the work and success of the future.

Chancellor J. H. Vincent's report opened with congratulations upon the work accomplished at the Assembly of 1887. Such extracts from the report as the following we are sure will interest all friends of Chautauqua: "When we consider the wide range of work attempted, and the fact that the movement is so entirely novel and without precedent in the history of educational institutions, we should not be surprised that some departments involve a large expense without a corresponding return; and that the persons for whom we have devised our plans have not yet been fully awakened to their value. But on the whole the outlook is in every way encouraging, and we may well take heart as we review the past and look out on the future.

"The Assembly last summer, in its Normal, Devotional, Instructional, and Recreative Departments, was successful beyond our most sanguine hopes; and while the expenses of the Assembly proper were not beyond those of previous Assemblies, the expansion of the Summer Schools and the extra advertising made necessary by false rumors concerning the extent of the fire of last March made the aggregate appear larger than hitherto. We are confident, however, that the expense will be justified by the outcome.

"The Chautauqua College of Liberal Arts, under the direct management of Dr. Wm. R. Harper, was much better sustained in 1887 than in any previous year. Many able professors were employed in the several departments of Language and Literature, and the work was carried on with a vigor and success that we have no doubt will be maintained in the future.

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guage, Science, and Art. The reputation which was given by this department will yield its fruit in the increased number of students the coming summer."

References were made to the Chautauqua Literary and Scientific Circle, the Chautauqua Teacher's Retreat, the Chautauqua School of Theology, the Chautauqua Town and Country Club, and the Chautauqua Young Folks' Reading Union.

In a general way the Chancellor's report outlined the program for the coming season, and the following names were announced among the lecturers and preachers: Dr. Phillips Brooks of Boston, Dr. T. De Witt Talmage of Brooklyn, Sam Jones of Georgia, Dr. J. M. Buckley of New York, Dr. Gunsaulus of Chicago, Dr. J. A. Broadus of Louisville, Kentucky, Professor Bradley of Garrett Biblical Institute, Professor Marcus D. Buell of Boston University, and many others. Dr. Harper is expected to remain through the entire six weeks of the season.

The Department of Music will be under the direction of Professors Sherwin, Case, Ellis, and Butterfield. Greater attention will be paid to congregational singing than ever before. From July 26 to the end of the Assembly, Miss Anna Park, the cornetist, of Somerville, Massachusetts, of the celebrated Park family, will be present to assist in conducting chorus work and congregational singing. Concerts are to be given from time to time during July and August by the Wesleyan University Glee Club, by the Boston Star Company, by the Ruggles Street Male Quartet of Boston, and possibly by the Hungarian Quartet.

The Report closed with the following earnest, hopeful words: "We are called by more than a human summoning to a great and beautiful work. It is an honor to every member of the Board to be identified with it, and I am confident that the largest prosperity will attend it if we continue to co-operate heartily, make concessions cheerfully, look forward hopefully, and push our plans vigorously and patiently to the time when we shall each and all be relieved from responsibility in this department of service by the good Providence which has imposed the same upon us, and which shall insure its successful progress even after we have all ceased to labor on the earth."

The report of Secretary Duncan was full of facts and figures of the most encouraging nature. Though expensive buildings have been erected and many other improvements made, yet the financial condition is steadily growing better. One of the most important items contained in this report was that relating to the recent test case concerning the right of the Assembly under the old camp-meeting leases. Both decisions reached, the last being that of the General Term, were favorable to the Assembly.

Mr. Geo. E. Vincent is Director of the Chautauqua Press, that is of the publication of books, and he made a full report of the work accomplished by this department.

Dr. T. L. Flood, Editor and Proprietor of THE CHAUTAUQUAN, sent in a cheering report of the growth and prosperity of this C. L. S. C. magazine.

In addition to the above came elaborate and, in most respects, gratifying reports from the Registrar of the Chautauqua University and the Dean of the Chautauqua School of Theology. The Registrar, Prof. W. D. McClintock, shows that non-resident college work and the correspondence method are gaining favor in educational circles. A number of cases in England and America were cited sustaining this statement. In this connection the Registrar points out the disadvantages under which the professors labor by reason of lack of opportunity to meet and consult, and also the need of funds to compensate teach-

ers for the labor required to do the work properly. He recommends some plan by which a faculty may be provided, who shall give their whole time to this work. This part of the report was referred to a special committee to report at the next meeting.

Dean Wright gave a very full representation of the six departments of the Chautauqua School of Theology. The plans of work were submitted in detail. The total number of students enrolled since the opening of the school is 662. The Dean made several suggestions touching the further development of the work, which were referred to a special committee.

The resignation of the Rev. R. S. Holmes, who for several years has been Registrar of Chautauqua University, was announced, and a tribute to his efficiency was voted by the Chancellor.

Once since the last meeting has death entered the circle of the trustees and removed from their number Col. W. C. J. Hall of Jamestown, N. Y. The committee appointed reported the following which was adopted by a rising vote:

Whereas, The Board has been deprived of a valuable member by the death of Col. W. C. J. Hall of Jamestown, N. Y.

Resolved, That we place in our records this memorial of our honored friend and associate. Mr. Hall was a son of William Hall, the well-known originator with William Broadhead of the Alpaca Mills of Jamestown and was himself for many years a large owner and superintendent of the works. He received a liberal education in Yale University and spent some years in the schools of Germany. After his return he was engaged in educational work, winning an enviable reputation, especially while serving as superintendent of the schools in the city of Meadville, Pa.

He fought for the Union three years during the War of the Rebellion and there planted the seeds of the disease which caused his death.

Mr. Hall was always greatly interested in scientific pursuits. He became distinguished especially in microscopy, and his superb instruments and specimens were constantly at the service of the Y. M. C. A. and other social and literary associations. For four years he served without any financial remuneration as Professor of Microscopy in the Chautauqua University. He was an earnest Christian, a great worker in the temperance cause, and found time amid the cares of a large and varied business to lend a helping hand to a number of liberal and philanthropic enterprises. Mr. Hall was remarkably kind and genial, possessing a fresh, almost childlike, nature which won him a large circle of friends among both young and old people.

We sincerely mourn the loss of his delightful companionship and wise counsels, but rejoice at the retrospect of a life so well filled with worthy deeds.

Resolved, That a copy of these resolutions be sent to his afflicted wife, to the newspapers, and to THE CHAUTAUQUAN.

JOHN H. VINCENT,
J. T. EDWARDS.

The Rev. N. I. Rubinkam of Jamestown, N. Y., was elected a trustee to fill the vacancy made by the death of Col. Hall; and Edgar Dusenbury of Portville, N. Y., was chosen to the vacancy caused by the death of Mr. A. Norton, which occurred prior to the semi-annual meeting of last August.

The Board organized for the next year by the unanimous re-election of Lewis Miller for President, and then proceeded with the same unanimity to the re-election of all the other officers of last year.

After much other, mostly routine, business, and with a feeling of hopefulness never equaled in the past, the Board adjourned until the next annual meeting to be held in Akron, Ohio.